PRELIMINARY ASSESSMENT

JONES & PARDEE SMELTER SITE
SALT LAKE COUNTY, UTAH
(UTD988075263)

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
Division of Environmental Response and Remediation
Prepared by : Ty L. Howard

Draft March 15, 1993
FINAL 9/27/93

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1.0 INTRODUCTION

Under authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Utah Department of Environmental Quality, Division of Environmental Response and Remediation (DERR), conducted a Preliminary Assessment (PA) of the Jones & Pardee Smelter Site (UTD988075263) in Salt Lake County, Utah. The scope of the investigation included an onsite reconnaissance visit, evaluation of exposure routes, and a target survey summary. The Environmental Protection Agency (EPA) Preliminary Assessment Worksheets are included as Appendix A and the EPA Potential Hazardous Waste Site Preliminary Assessment Form is included as Appendix B.

2.0 OBJECTIVES

The purpose of the Preliminary Assessment is to report on information concerning conditions at the Site, to assess any threat posed to public health and the environment, and to determine if additional action under CERCLA is warranted. The CERCLA Eligibility Questionnaire is included as Appendix C.

3.0 SITE DESCRIPTION

3.1 Site Location and Description

The Site is located in Little Cottonwood Canyon within the Tanners Flat Campground area. This location lies within Township 3S, Range 2E of the U.S.G.S. 7.5' Dromedary Peak Quadrangle Map as shown in Figure 1. This area has not been sectioned out on the map. The geographic coordinates are 40° 34' 20" north latitude and 111° 41' 56" west longitude as calculated and reported in Appendix E. To reach the Site go south on Interstate-15 from Salt Lake City. Take the 7200 South exit eastbound. Turn south on Highway 210 and follow the road into Little Cottonwood Canyon. The Site lies approximately 6 miles up the canyon in the Tanners Flat Campground area. Although the Site is essentially flat this area is located in a steep, sloped region of the mountain. An aerial photograph is included as Appendix I and a site sketch is included as Figure 2. A more detailed description of the Site can be found in the Site Visit Report (Appendix D).

3.2 Site History

The smelter was built in 1871 by the Jones & Pardee Company. It was sold in 1872 to the Wellington Company of San Francisco after which it became known as Wellington Mining & Smelting. The smelter operated with one shaft furnace which had the capacity to process 8 tons of ore per day (Alter, 1932). Records indicate that this smelter was located in Tannerville which was a small lumber and logging town built in the 1850's. In the early 1870's the town also became a smelting and ore shipping center. The town was destroyed

by fire in 1872 and never rebuilt (Carr, 1972). This area is now known as Tanner Flats. Although the town was destroyed in 1872 some records indicate that the smelter operated until 1873 (Porath, A435). Records at the Salt Lake County Recorders office contain very little information on the area now known as Tanner Flats. Records kept during this time frame are sketchy and often contradictory.

4.0 POTENTIAL EXPOSURE PATHWAYS

4.1 Waste Characteristics

All the waste at the site consists of slag which is a by-product of the smelting process. Based on other similar smelters that have been studied in the Salt Lake Valley, slag is generally found to have high concentrations of heavy metals. The amount of slag found at the Site is small but the property on which the smelter was located consists of approximately 20 acres of land some of which is suspected to have contaminated soil. Containment of contaminated soil and waste is absent at the Site. There are also no fences or barriers to prohibit public access to the property.

4.2 Surface Water Pathway

4.2.1 Hydrologic Setting

The terrain at the Site is predominantly flat. The Little Cottonwood Creek is located 25 feet to the south of the Site. The flow rate of Little Cottonwood Creek is approximately 64 cfs (Alserda, 1993). After emerging from the canyon, Little Cottonwood Creek flows to the northwest through residential areas and eventually enters the Jordan River located approximately 20 miles to the northwest. The size of the surrounding upgradient drainage area for this Site is estimated at approximately 2,400 acres.

4.2.2 Surface Water Targets

The only surface water intake within 15 downstream miles of the Site is the Little Cottonwood Water Treatment Plant located near the mouth of Little Cottonwood Canyon. The plant is located approximately 5 miles downstream of the Site. The plant is owned by the Metropolitan Water District which serves a population of approximately 180,000 people of Salt Lake City and Sandy City. All water rights and their uses within 4 miles of the Site can be found in Appendix H.

Little Cottonwood Creek is used by some people as a recreational fishery. Aquatic species commonly caught include cutthroat trout and rainbow trout. These species of fish could become targets for exposure to contaminants if the water in Little Cottonwood Creek were to become contaminated. A reconnaissance of all the wetlands along Little Cottonwood Creek has not been done but there are areas within 15 downstream miles of the Site that contain wetlands.

4.2.3 Surface Water Conclusions

The possibility does exist that the Little Cottonwood Creek could be affected by contaminants associated with the Site. Storm water runoff could leach heavy metals out of contaminated soil and eventually carry them to the creek, or it could carry the contaminated soil particles themselves to the creek which would most likely be the case. If the water in Little Cottonwood Creek were to become contaminated the aquatic life in the creek would be the main concern. The threat to human health would probably be low due to the small volume of waste present and dilution factors.

4.3 Groundwater Pathway

4.3.1 Hydrogeologic Setting

Alluvium in the canyon is composed principally of Quaternary and Tertiary alluvial, glacial, and Lake Bonneville deposits. It is the only glaciated canyon in Utah where glacial ice extended into Lake Bonneville (Hintze, 1988.).

There is not a lot known about the hydrogeology of the area, but it is known that it is a recharge zone for the aquifer system of the Salt Lake Valley. There is probably a thin sediment layer at the base of the canyon with the canyon walls consisting of mostly bedrock. The depth to the water table in this area varies. In some places there are surface expressions of groundwater in the form of springs and in other places groundwater may be several hundred feet below ground surface. Since this site is located in a recharge area there is probably only one aquifer present. There may however, be large areas of perched water.

4.3.2 Groundwater Targets

The closest drinking water source to the Site is the Tanners Flats Spring which is virtually located on the Site. This spring serves a transient population of vacationers who camp at the Tanner Flats Campground during the summer months. There are five other groundwater withdrawals located within a 4 mile radius of the Site. These locations are shown on a map found in Appendix G along with a list which explains each source.

4.3.3 Groundwater Conclusions

Based on the available information and other similar smelter studies, contamination of the aquifer is a possibility. This site is located on a recharge zone for the aquifer system of the Salt Lake Valley.

4.4 Air Pathway

4.4.1 Meteorology

Weather conditions at the Site are similar to the Salt Lake Valley with the exception that this Site lies in Little Cottonwood Canyon which usually receives more precipitation than

the valley floor. The average annual precipitation for this area is about 41 inches, most of which comes in the form of mountain snow pack in the winter time (Lynn, Alta Ski Resort, 1992). Wind patterns near the Site vary and are dependent on season and storm fronts passing through.

4.4.2 Air Exposure Targets

Based on 1990 Census data (Appendix F), there are 41 people living within 1/4 mile of the site and 17,618 people living within 4 miles of the site who could become possible targets for exposure to contaminated air. The Lone Peaks Wilderness area is located approximately 2 miles from the Site. This is a Federally designated wilderness area and as such is considered to be a sensitive environment. The Mount Olympus Wilderness area, located approximately 7 miles from the Site, is also a sensitive environment. There are also small areas of wetlands located along the Little Cottonwood Creek.

4.4.3 Air Exposure Conclusions

If strong canyon winds were to prevail then there could be a risk of exposure to contaminated air due to the stirring up of dust on unpaved roadways and areas of disturbed vegetation. However, most of the area is covered with trees, shrubs and grasses which would inhibit contaminated dust particles from entering the air. The main roads are paved in the immediate area. This is not a very likely route of exposure.

4.5 Soil Exposure Pathway

4.5.1 Soil Conditions

The soil at the Site can be characterized as a gravelly, coarse grained deposit underlain with bedrock. As the soil approaches the Little Cottonwood Creek the soil particles become finer and eventually become stream sediment mixed with bedrock material of Quaternary age. Soil at the Site has been co-mingled with slag from the smelting operation which once existed. Slag can still be found throughout the 20 acre area.

4.5.2 Soil Targets

Based on the 1990 Census data (Appendix F), there are 17,618 people living within a four mile radius of the site and 41 people living with 1/4 mile of the site who could become possible targets for exposure to contaminated soil. The Lone Peaks Wilderness area is a terrestrial sensitive environment and is located approximately 2 miles from the Site. The Mount Olympus Wilderness area is located about 7 miles from the Site.

4.5.3 Soil Exposure Conclusions

Like other similar smelters that have been investigated in the Salt Lake Valley, elevated levels of heavy metals contamination are likely to be present in the soil at the Site. The soil exposure pathway is a likely route of exposure to contaminants if people were to come in contact with it. However, the resident population in the immediate vicinity is small thus

reducing the occurrence of repeated exposure. The main concern would be exposure to contaminated soil by vacationers visiting the area since this is a campground location.

5.0 SUMMARY AND CONCLUSIONS

The Jones & Pardee Smelter Site is located in Little Cottonwood Canyon. Based on the available data, the pathways that may be of concern are the groundwater pathway, surface water pathway, and the soil exposure pathway. The groundwater pathway may be considered a secondary route of exposure due to the small quantity of slag present. The surface water pathway can also be considered a secondary route of exposure for the same reason. The soil exposure pathway appears to be the primary route of exposure, although there are not many targets in the area thus reducing the concern. The air exposure pathway appears to be of no concern since most of the area is heavily vegetated with various types of grasses. The severity of the threat posed by this Site is not thoroughly defined but appears to be minimal.

6.0 REFERENCES

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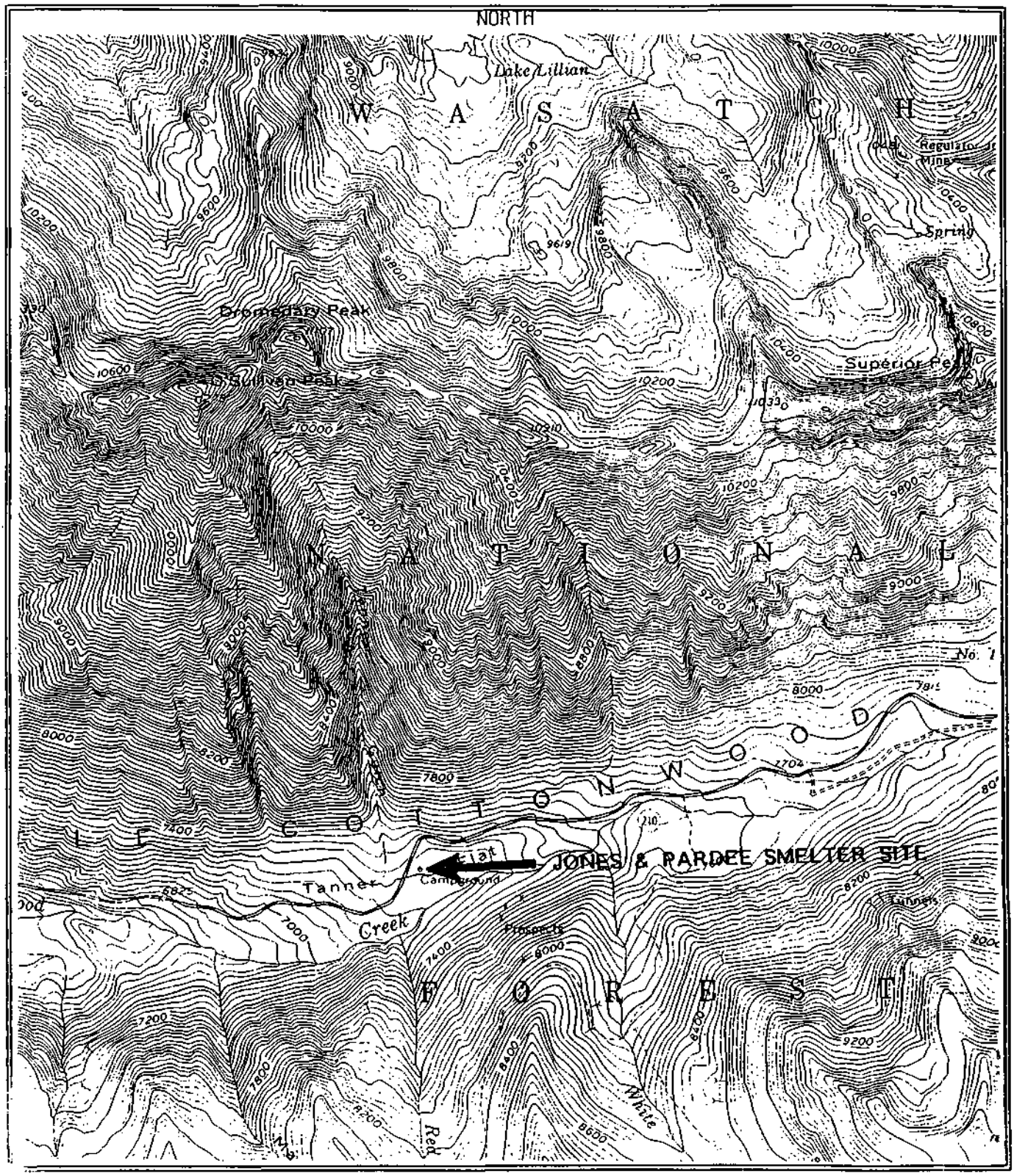
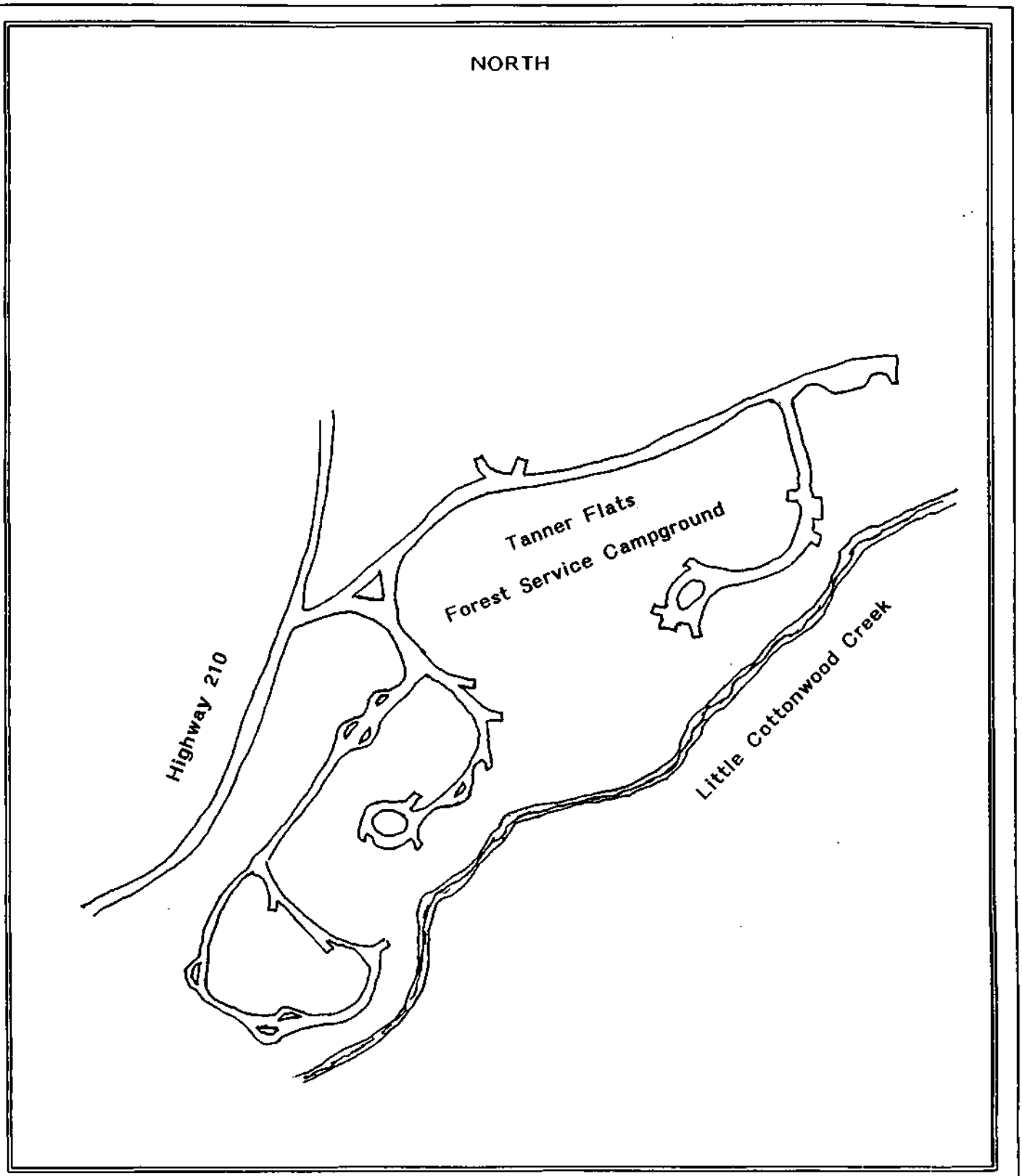


Source: Dromedary Peak, Utah 7.5' Topo. Map.

Scale 1:24,000

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF ENVIRONMENTAL RESPONSE AND REMEDIATION
JONES & PARDEE SMELTER SITE FIGURE #1 Site Location



Not to scale

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENVIRONMENTAL
RESPONSE AND REMEDIATION

JONES & PARDEE SMELTER SITE
FIGURE #2
Site Sketch

APPENDIX A

PRELIMINARY ASSESSMENT WORKSHEETS

PRELIMINARY ASSESSMENT WORKSHEET

PREPARER'S NAME: Ty L. Howard

SITE NAME: JONES & PARDEE SMELTER SITE

DATE: 2/24/93

MAJOR CONSIDERATIONS

A) DOES ANY QUALITATIVE OR QUANTITATIVE INFORMATION EXIST THAT MAY INDICATE AN OBSERVED RELEASE TO AIR, GROUNDWATER, SOIL OR SURFACE WATER? YES

Describe: THE SLAG PRESENT AT THE SITE HAS BEEN CO-MINGLED WITH THE SOIL.

B) IF THE ANSWER TO #1 IS YES, IS THERE EVIDENCE OF DRINKING WATER SUPPLY CONTAMINATION OR ANY OTHER TARGET CONTAMINATION (i.e. food chain, recreation areas, or sensitive environments)? NO

Describe:

C) ARE THERE SENSITIVE ENVIRONMENTS WITHIN A 4-MILE RADIUS OR 15 DOWNSTREAM MILES OF THE SITE? YES IF YES, DESCRIBE IF ANY OF THE FOLLOWING APPLY:

1) Multiple sensitive environments? WETLANDS ASSOCIATED WITH LITTLE COTTONWOOD CREEK.

2) Federally designated sensitive environment(s)? LONE PEAKS WILDERNESS AREA.

3) Sensitive environment(s) downstream on a small or slow flowing surface water body?

D) IS THE SITE LOCATED IN AN AREA OF KARST TERRAIN? NO

Describe:

E) DOES THE WASTE SOURCE LIE FULLY OR PARTIALLY WITHIN A WELLHEAD PROTECTION AREA AS DESIGNATED ACCORDING TO SECTION 1428 OF THE SAFE DRINKING WATER ACT? NO

Describe:

F) DOES ANY QUALITATIVE OR QUANTITATIVE INFORMATION EXIST THAT PEOPLE LIVE OR ATTEND SCHOOL ON ONSITE CONTAMINATED PROPERTY? NO

Describe:

SITE INFORMATION

1. SITE NAME: JONES & PARDEE SMELTER SITE

ADDRESS: LITTLE COTTONWOOD CANYON

CITY: COUNTY: SALT LAKE STATE: UTAH

ZIP: 84092 EPA ID: UTD988075263 LATITUDE: 40°34'20" LONGITUDE: 111°41'56"

2. DIRECTIONS TO SITE (From nearest public road):

3. SITE OWNERSHIP HISTORY (Use additional sheets, if necessary):

A. Name of current owner: NATIONAL FOREST SERVICE

Address: LITTLE COTTONWOOD CANYON

City: _____ County: SALT LAKE

State: UTAH Zip: 84092 Dates: From _____ To _____

Phone: N/A

B. Name of previous owner: _____

Address: _____

City: _____ County: _____

State: _____ Zip: _____ Dates: From _____ To _____

Phone: _____

Source of ownership data: _____

4. TYPE OF OWNERSHIP (Check all that apply):

___ Private ___ State ___ Municipal X Federal ___ County

___ Other (describe): _____

5. NAME OF SITE OPERATOR: _____

Address: _____

City: _____ County: _____

State: _____ Zip: _____ Phone: _____

BACKGROUND/OPERATING HISTORY

6. DESCRIBE OPERATING HISTORY OF SITE: THE SMELTER WAS IN OPERATION FOR TWO YEARS FROM MARCH, 1871 TO 1872.

Source of information: BUTLER AND LOUGHLIN, 1915.

7. DESCRIBE THE NATURE OF SITE OPERATIONS (property size, manufacturing, waste disposal, storage, etc.): THE SMELTER OPERATED ONE SHAFT FURNACE WITH THE CAPACITY TO PROCESS 5 TONS OF ORE PER DAY. THE SMELTER PROCESSED LEAD ORE IN LITTLE COTTONWOOD CANYON AT A LOCATION KNOWN AS TANNERVILLE. THIS LOCATION IS NOW KNOWN AS TANNERS FLAT FOREST SERVICE CAMPGROUND. THE SITE COVERS APPROXIMATELY A 20 ACRE AREA.

Source of information: J. CECIL ALTER, 1932.

8. DESCRIBE ANY EMERGENCY OR REMEDIAL ACTIONS THAT HAVE OCCURRED AT THE SITE: ACCORDING TO AVAILABLE INFORMATION, NO ACTIONS HAVE TAKEN PLACE AT THIS SITE.

Source of information: UTAH DEQ/DERR.

9. ARE THERE RECORDS OR KNOWLEDGE OR ACCIDENTS OR SPILLS INVOLVING SITE WASTES? NO

Describe: _____

Source of information: _____

10. DISCUSS EXISTING SAMPLING DATA AND BRIEFLY SUMMARIZE DATA QUALITY (e.g., sample objective, age/comparability, analytical methods, detections limits and QA/QC): NONE AVAILABLE.

Source of information: _____

WASTE CONTAINMENT/HAZARDOUS SUBSTANCE IDENTIFICATION

11. FOR EACH SOURCE AT THE SITE, SUMMARIZE ON TABLE 1 (attached): 1) Methods of hazardous substance disposal, storage or handling; 2) size/volume/area of all features/structures that might contain hazardous waste; 3) condition/integrity of each storage disposal feature or structure; 4) types of hazardous substances handled.

12. BRIEFLY EXPLAIN HOW WASTE QUANTITY WAS ESTIMATED (e.g., historical records or manifests, permit applications, air photo measurements, etc.): THE VOLUME OF SLAG FOUND AT THE SITE APPEARS TO BE SMALL, BUT SOIL MAY BE CONTAMINATED THROUGHOUT A 20 ACRE AREA. THIS WAS ESTIMATED VISUALLY DURING THE SITE VISIT.

Source of information: SITE VISIT.

13. DESCRIBE ANY RESTRICTIONS OR BARRIERS ON ACCESSIBILITY TO ONSITE WASTE MATERIALS: THE SITE IS ACCESSIBLE TO THE PUBLIC.

Source of Information: SITE VISIT

GROUND WATER CHARACTERISTICS

14. IS THERE ANY POSITIVE OR CIRCUMSTANTIAL EVIDENCE OF A RELEASE TO GROUND WATER? NO

Describe: _____

Source of information: _____

15. ON TABLE 2 (attached), GIVE NAMES, DESCRIPTIONS, AND CHARACTERISTICS OR GEOLOGIC/HYDROGEOLOGIC UNITS UNDERLYING THE SITE.

16. NET PRECIPITATION: 41.37" ANNUALLY

SURFACE WATER CHARACTERISTICS

17. ARE THERE SURFACE WATER BODIES WITHIN 2 MILES OF THE SITE? YES

___ Ditches ___ Lakes ___ Pond X Creeks ___ Rivers

X Other (Describe) SPRINGS

18. DISCUSS THE PROBABLE SURFACE RUNOFF PATTERNS FROM THE SITE TO SURFACE WATERS: THE RUNOFF WILL FLOW INTO LITTLE COTTONWOOD CREEK LOCATED 25 FEET TO THE NORTH OF THE SITE.

19. PROVIDE A SIMPLIFIED SKETCH OF SURFACE RUNOFF AND SURFACE WATER FLOW SYSTEM FOR 15 DOWNSTREAM MILES (see item #35).

20. IS THERE ANY POSITIVE OR CIRCUMSTANTIAL EVIDENCE OF SURFACE WATER CONTAMINATION? NO

Describe:

Source of information:

21. ESTIMATE THE SIZE OF THE UPGRADIENT DRAINAGE AREA FROM THE SITE: 2,400 acres

Source of information: USGS MAP DROMEDARY PEAK QUADRANGLE, 1955.

22. DETERMINE THE AVERAGE ANNUAL STREAM FLOW OF DOWNSTREAM SURFACE WATERS

Water Body: LITTLE COTTONWOOD CREEK Flow: 55 cfs

Water Body: JORDAN RIVER Flow: 600-800 cfs

Water Body: Flow: cfs

23. IS THE SITE OR PORTIONS THEREOF LOCATED IN SURFACE WATER? NO

24. IS THE SITE LOCATED IN A FLOODPLAIN (indicate flood frequency)? YES, 10-100 YEAR.

25. IDENTIFY AND LOCATE (see item #36) ANY SURFACE WATER RECREATION AREA WITHIN 15 DOWNSTREAM MILES OF THE SITE: LITTLE COTTONWOOD CREEK AND JORDAN RIVER.

26. TWO YEAR 24-HOUR RAINFALL: 41.37'

TARGETS

27. DISCUSS GROUND WATER USAGE WITHIN FOUR MILES OF THE SITE: GROUNDWATER IS MAINLY USED FOR DRINKING BUT IT IS ALSO USED FOR IRRIGATION.

Source of information: UTAH DIVISION OF DRINKING WATER.

28. SUMMARIZE THE POPULATION SERVED BY GROUND WATER ON THE TABLE BELOW:

Distance (Miles)	Population
0 - 1/4	0
1/4 - 1/2	0
1/2 - 1	0
1 - 2	0
2 - 3	310
3 - 4	800

Source of information: SEE PA, APPENDIX G, DRINKING WATER SOURCES WITHIN 4 MILES OF THE SITE.

29. IDENTIFY AND LOCATE (see item #35) POPULATION SERVED BY SURFACE WATER INTAKES WITHIN 15 DOWNSTREAM MILES OF THE SITE: THE LITTLE COTTONWOOD WATER TREATMENT PLANT IS LOCATED APPROXIMATELY 5 MILES DOWNSTREAM OF THE SITE. IT IS OWNED BY THE METROPOLITAN WATER DISTRICT AND SERVES ABOUT 180,000 PEOPLE.

Source of information: SALT LAKE CITY WATER SYSTEM.

30. DESCRIBE AND LOCATE FISHERIES WITHIN 15 DOWNSTREAM MILES OF THE SITE (i.e., provide standing crop of production and acreage, etc.): LITTLE COTTONWOOD CREEK IS A FISHERY. THE STANDING CROP IS UNKNOWN. Jordan River listed in PA Form.

Source of information: DEPARTMENT OF NATURAL RESOURCES.

31. DETERMINE THE DISTANCE FROM THE SITE TO THE NEAREST OF EACH OF THE FOLLOWING LAND USES

Description	Distance (Miles)
Commercial/Industrial/Institutional	1.0
Single Family Residential	3.5
Multi-Family Residential	3.5
Park	>4
Agricultural	>4

Source of information: SITE VISIT.

32. SUMMARIZE THE POPULATION WITHIN A FOUR-MILE RADIUS OF THE SITE:

Distance (Miles)	Population
0 - 1/4	41
1/4 - 1/2	163
1/2 - 1	203
1 - 2	1,329
2 - 3	3,717
3 - 4	12,165

Source of information: 1990 CENSUS TRACTS

OTHER REGULATORY INVOLVEMENT

33. DISCUSS ANY PERMITS:

County: NONE KNOWN.

State: NONE KNOWN.

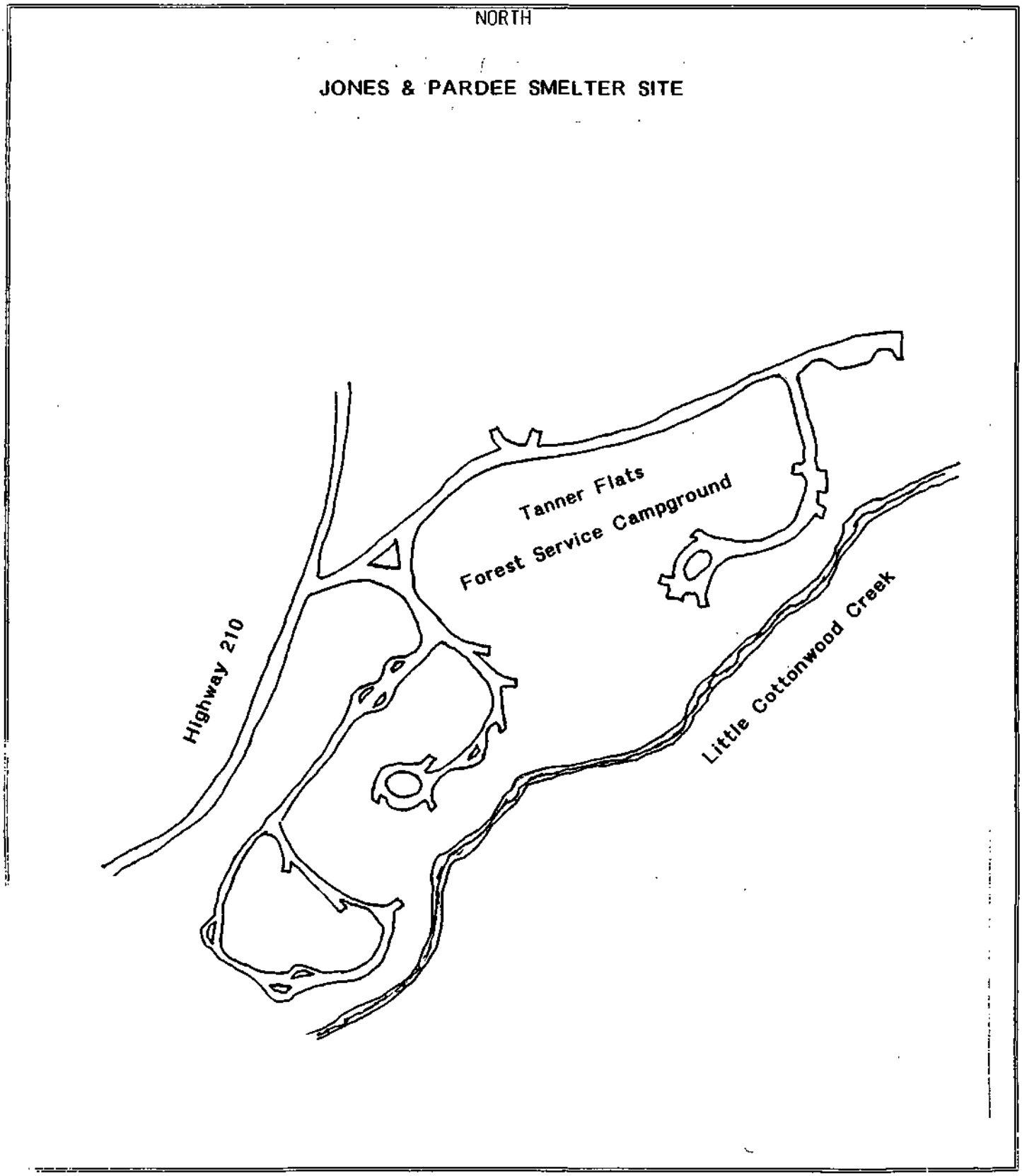
Federal: NONE KNOWN.

Other: NONE KNOWN.

Source of information:

34. SKETCH OF SITE

Include all pertinent features, e.g., wells, storage areas, underground storage tanks, waste areas, buildings, access roads, areas of ponded water, etc. Attach additional sheets with sketches of enlarged areas, if necessary.



5. SURFACE WATER FEATURES

Provide a simplified sketch of the surface runoff and surface water flow system for 15 downstream miles. Include all pertinent features, e.g., intakes, recreation areas, fisheries, gauging stations, etc.

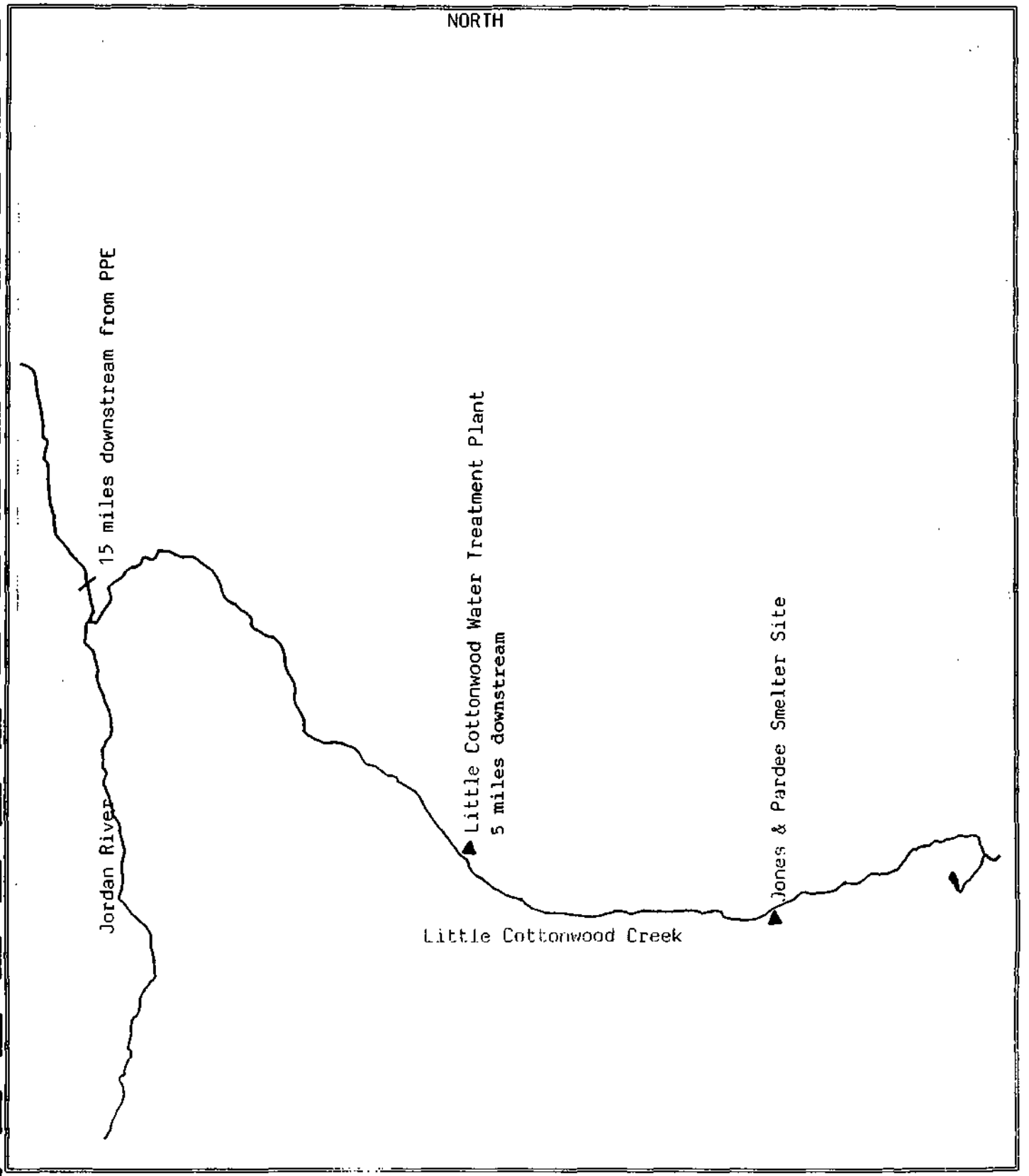


TABLE 1

WASTE CONTAINMENT AND HAZARDOUS SUBSTANCE IDENTIFICATION *

SOURCE TYPE	SIZE (Volume/Area)	ESTIMATED WASTE QUANTITY	SPECIFIC COMPOUNDS	CONTAINMENT **	SOURCE OF INFORMATION
CONTAMINATED SOIL	20 ACRES	INSUFFICIENT INFORMATION TO ESTIMATE.	LEAD, ARSENIC, AND OTHER HEAVY METALS.	GROUNDWATER-NON EXISTENT. SURFACE WATER-NONE. SOIL EXPOSURE-NONE. AIR-NON EXISTENT	SITE VISIT.

* Use additional sheets if necessary.

** Evaluate containment of each source from the perspective of each migration pathway (e.g., ground water pathway - non-existent, natural or synthetic liner, corroding underground storage tank; surface water - inadequate freeboard, corroding bulk tanks; air - unstable slag piles, leaking drums, etc.)

TABLE 2

HYDROGEOLOGIC INFORMATION *

STRATA NAME/ DESCRIPTION	THICKNESS (ft)	HYDRAULIC CONDUCTIVITY(cm/sec)	TYPE OF DISCONTINUITY **	SOURCE OF INFORMATION
SANDY, GRAVELY, COARSE GRAINED DEPOSIT.	1-25 FEET	0.025-50 FT/DAY	UNKNOWN	TECHNICAL PUB. 31 UTAH, DNR 1971.
BEDROCK	25 TO SEVERAL 100 FT.	0.025-50 FT/DAY	UNKNOWN	"

* Use additional sheets if necessary.

** Identify the type of discontinuity within four-miles from the site (e.g., river, strata "pinches out", etc.)

APPENDIX B

EPA POTENTIAL HAZARDOUS WASTE SITE FORM

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION	
	State:	CERCLIS Number: UTD988075263
	CERCLIS Discovery Date: 4/20/92	

1. GENERAL SITE INFORMATION:

Name: Jones and Pardee Smelter Site	Street Address: Tanners Flat	
City: Little Cottonwood Canyon	State: Utah	Zip Code: 84092
County: Salt Lake	County Code: 035	Congressional District: 2

Latitude: 40° 34 ' 20 . 0 "

Longitude: 111 ° 41 ' 56 . 0 "

Approximate Area of Site:

20 Acres _____ Square Feet

Status of Site:

___ Active
X Inactive
___ Not Specified
___ Not Applicable

2. OWNER/OPERATOR INFORMATION

Owner: Wasatch National Forest		Operator:	
Street Address: Little Cottonwood Canyon		Street Address:	
City: N/A		City:	
State: Utah	Zip Code: 84092	State:	Zip Code:
Telephone:		Telephone:	

Type of Ownership:
___ Private ___ State
___ Municipal ___ Indian
___ County ___ Not Specified
X Federal Agency _____
___ Other _____

How Initially Identified:
___ Citizen Complaint ___ RCRA/CERCLA Notification
___ PA Petition
X State/Local Program ___ Not Specified
___ Incidental ___ Other _____
___ Federal Program _____

3. SITE EVALUATOR INFORMATION

Name of Evaluator: Ty Howard	Agency/Organization: UDEQ/DERR	Date: 3/1/93
Street Address: 1950 West North Temple	City: Salt Lake	State: Utah
Name of EPA or State Agency Contact: Ty Howard		Telephone: (801) 536-4100
Street Address: 1950 West North Temple	City: Salt Lake City	State: Utah

4. SITE DISPOSITION (for EPA use only)

Emergency Response/Removal Assessment Recommendation:

___ Yes ___ No

Date: __/__/__

CERCLIS Recommendation:

___ Higher Priority SI
___ Lower Priority SI
___ NFRAP
___ RCRA
___ Other: _____

Date: __/__/__

Signature:

Name (typed): _____

Position: _____

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT FORM - PAGE 2 OF 4

CERCLIS Number
UTD988075263

5. GENERAL SITE CHARACTERISTICS

Predominant Land Uses Within 1 Mile of Site:

___ Industrial
___ Commercial
___ Residential
X Forest/Fields
___ Agriculture
X Mining
___ DOD
___ DOE
___ DOI
___ Other Federal Agency
___ Other _____

Site Setting:

___ Urban
___ Suburban
X Rural

Years of Operation:

Beginning Year: 1871
Ending Year: 1872
Unknown: ___

Type of Operations (check all that apply):

_ Manufacturing
- _ Lumber and Wood Products
- _ Inorganic Chemicals
- _ Plastic and/or Rubber Products
- _ Paints, Varnishes
- _ Industrial Organic Chemicals
- _ Agricultural Chemicals (e.g. Pesticides, fertilizers)
- _ Miscellaneous Chemical Products (e.g. Adhesives, explosives, ink)
- X Primary Metals
- _ Metal Coating, Plating, Engraving
- _ Metal Forging, Stamping
- _ Fabricated Struct. Metal Products
- _ Electronic Equipment
- _ Other Manufacturing

X Mining
- _ Metals
- _ Coal
- _ Oil and Gas
- _ Non-Metallic Metals

_ Not Specified
X Other: Metal Smelting

_ Retail
_ Recycling
_ Junk/Salvage Yard
_ Municipal Landfill
_ Other Landfill
_ DOD
_ DOE
_ DOI
_ Other Federal Facility
_____
_ RCRA
- _ Treatment, Storage, or Disposal Facility
- _ Large Quantity Gen.
- _ Small Quantity Gen.
- _ Subtitle D
  - _ Municipal
  - _ Industrial
- _ "Converter"
- _ "Protective Filer"
- _ "Non or Late Filer"

Waste Generated:

_ Onsite
_ Offsite
_ Onsite and Offsite
X Unknown

Waste Deposition Authorized By:

_ Present Owner
_ Former Owner
_ Present and Former Owner
_ Unauthorized
X Unknown

Waste Accessible to the Public:

X Yes
_ No

Distance to Nearest Dwelling, School, or Workplace:

5,280 Feet

6. WASTE CHARACTERISTICS INFORMATION

SOURCE TYPE: (Check all that apply)	SOURCE WASTE QUANTITY (Include Units)	TIER*
___ Landfill		
___ Surface Impoundment		
___ Drums		
___ Tanks and Non-Drum Containers		
___ Chemical Waste Pile		
___ Scrap Metal or Junk Pile		
___ Tailings Pile		
___ Trash Pile (Open Dump)		
___ Land Treatment		
___ Contaminated Ground Water Plume (Unidentified Source)		
___ Contaminated Surface Water/Sediment (Unidentified Source)		
X Contaminated Soil	20 Acres	A
___ Other		
___ No Sources		

* C = Constituent, W = Wastestream, V = Volume, A = Area

General Types of Waste (Check all that Apply):

X Metals
___ Organics
___ Inorganics
___ Solvents
___ Paints/Pigments
___ Laboratory/Hospital Waste
___ Radioactive Waste
___ Oily Waste
___ Pesticides/Herbicides
___ Acids/Bases
___ Construction/Demolition Waste
___ Municipal Waste
___ Mining Waste
___ Explosives
X Other: Slag

Physical State of Waste as Deposited (Check all that Apply):

X Solid
___ Liquid
___ Sludge
___ Gas
___ Powder

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT FORM - PAGE 3 OF 4

CERCLIS Number
UTD988075263

7. GROUND WATER PATHWAY

Is the Ground Water Used for Drinking Water Within 4 Miles:

X Yes ___ No

Type of Drinking Water Wells Within 4 Miles (Check all that apply):

X Municipal

X Private

___ None

Is There a Suspected Release to Ground Water:

___ Yes X No

Have Primary Target Drinking Water Wells Been Identified:

___ Yes X No

If Yes, Enter Primary Target Population:

_____ People

List Secondary Target Population Served by Ground Water Withdrawn From:

0-¼ Mile	0
>¼-½ Mile	0
>½-1 Mile	0
>1-2 Miles	0
>2-3 Miles	310
>3-4 Miles	800
Total Within 4 Miles	1,110

Depth to Shallowest Aquifer:
<25 Feet

Karst Terrain/Aquifer Present:
___ Yes X No

Nearest Designated Wellhead Protection Area:
___ 0 - ¼ Mile
___ > ¼ - 4 Miles
X None Within 4 Miles

8. SURFACE WATER PATHWAY

Type of Surface Water Draining Site and 15 Miles Downstream (Check all that Apply):

X Stream ___ River ___ Pond ___ Lake
___ Bay ___ Ocean ___ Other _____

Shortest Overland Distance From Any Source to Surface Water:

25 Feet _____ Miles

Is There a Suspected Release to Surface Water:

___ Yes X No

Site is Located In:
___ Annual - 10 yr Floodplain
X > 10 yr - 100 yr Floodplain
___ > 100 yr - 500 yr Floodplain
___ > 500 yr Floodplain

Drinking Water Intakes Located Along the Surface Water Migration Path:

X Yes ___ No

Have Primary Target Drinking Water Intakes Been Identified:

___ Yes X No

If Yes, Enter Population Served by Primary Target Intakes:

_____ People

List All Secondary Target Drinking Water Intakes:

Name	Water Body	Flow (cfs)	Population Served
Little Cottonwood Creek	Creek	55	180,000

Total Within 15 Miles 180,000

Fisheries Located Along the Surface Water Migration Path:

X Yes ___ No

Have Primary Target Fisheries Been Identified:

___ Yes X No

List All Secondary Target Fisheries:

Water Body / Fishery Name	Flow (cfs)
Little Cottonwood Creek	55
Jordan River	400-600

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT FORM - PAGE 4 OF 4

CERCLIS Number
UTD988075263

8. SURFACE WATER PATHWAY (continued)

Wetlands Located Along the Surface Water Migration Path:
X Yes ___ No

Have Primary Target Wetlands Been Identified:
___ Yes X No

List Secondary Target Wetlands:

Water Body	Flow (cfs)	Frontage Miles
Little Cottonwood Creek	55	Unknown

Other Sensitive Environments Located along the Surface Water Migration Path:
___ Yes X No

Have Primary Target Sensitive Environments Been Identified:
___ Yes X No

List Secondary Target Sensitive Environments:

Water Body	Flow (cfs)	Sensitive Environment Type
N/A		

9. SOIL EXPOSURE PATHWAY

Are People Occupying Residences or Attending School or Day Care Within 200 Feet of Areas of Known or Suspected Contamination:
___ Yes X No

If Yes, Enter Total Resident Population:

_____ People

Number of Workers Onsite:

X None
___ 1 - 100
___ 101 - 1,000
___ > 1,000

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:
___ Yes X No

If Yes, List Each Terrestrial Sensitive Environment:

10. AIR PATHWAY

Is There a Suspected Release to Air:
___ Yes X No

Enter total Population on or within:

Onsite	0
0 - ¼ Mile	41
> ¼ - ½ Mile	163
> ½ - 1 Mile	203
> 1 - 2 Miles	1,329
> 2 - 3 Miles	3,717
> 3 - 4 Miles	12,165
Total Within 4 Miles:	17,618

Wetlands Located Within 4 Miles of the Site:
X Yes ___ No

Other Sensitive Environments Located Within 4 Miles of the Site:
X Yes ___ No

List All Sensitive Environments Within ½ Mile of the Site:

Distance	Sensitive Environment Type - Wetland Area (Acres)
Onsite	None
0 - ¼ Mile	None
> ¼ - ½ Mile	None

APPENDIX C

CERCLA ELIGIBILITY QUESTIONNAIRE

CERCLA ELIGIBILITY QUESTIONNAIRE

SITE NAME: Jones & Pardee Smelter Site

CITY: Little Cottonwood Canyon STATE: Utah

EPA ID NUMBER: UTD988075263

I. CERCLA ELIGIBILITY	Yes	No
Did the facility cease operation prior to November 19, 1980?	X	___

If answer YES, STOP, facility is probably a CERCLA site.

If answer is NO, Continue to Part II.

II. RCRA ELIGIBILITY	Yes	No
Did the Facility file a RCRA Part A application?	___	___
If YES:		
1. Does the facility currently have interim status?	___	___
2. Did the facility withdraw its Part A application?	___	___
3. Is the facility a known or possible protective filer? (Facility filed in error).	___	___
4. Type of facility:		
Generator ___ Transporter ___ Recycler ___		
TSD (Treatment/Storage/Disposal) __		
Does the facility have a RCRA operating or post closure permit?	___	___
Is the facility a late (after 11/19/80) or non-filer that has been identified by the EPA or the State? (Facility did not know it needed to file under RCRA).	___	___

If all answers to question in Part II are NO, STOP, the facility is a CERCLA eligible site.

If the answer to #2 or #3 is YES, STOP, the facility is a CERCLA eligible site.

If answer #2 and #3 are NO and any OTHER answer is YES, site is RCRA, continue to Part III.

III. RCRA SITES ELIGIBLE FOR NPL	Yes	No
Has the facility owner filed for bankruptcy under federal or state laws?	___	___
Has the facility lost RCRA authorization to operate or shown probable unwillingness to carry out corrective action?	___	___
Is the facility a TSD that converted to a generator, transporter or recycler facility after November 19, 1980?	___	___

IV. EXEMPTED SUBSTANCES		
Does the release involve hazardous substances other than petroleum?	___	___

The site may never reach the NPL. We need to be able to refer it to any other program in EPA or state agencies which may have jurisdiction, and thus be able to effect a cleanup. Responses should summarize available information pertaining to the question.

1) Is there an owner or operator? Yes, the property is owned by the Federal Government.

2) (NPDES-CWA) Is there a discharge water containing pollutants with surface water through a point source (pipe, ditch, channel, conduit, etc.)? No.

3) (Sec. 404-CWA) Have fill or dredged material been deposited in a wetland or on the banks of a stream? Is there evidence of heavy equipment operating in ponds, streams or wetlands? No.

4) (UIC-SDWA) Are fluids being disposed of to the subsurface through a well, cesspool, septic system, pit, etc.? No.

5) (TSCA) Is it suspected that there are PCB's on the site which came from a source with greater than 50 ppm PCB's such as oil from electrical transformers or capacitors? No.

6) (FIFRA) Is there a suspected release of pesticides from a pesticide storage site? Are there pesticide containers on site? No.

7) (RCRA - Subtitle D) Is there an owner or operator who is obligated to manage solid waste storage or disposal units under State solid waste or groundwater protection regulations? No.

8) (UST) Is it suspected that there is a leaking underground storage tank containing a product which is a hazardous substance or petroleum? No.

APPENDIX D

SITE VISIT REPORT

SITE VISIT REPORT

DATE/TIME: March 4, 1993 10:00 a.m.

WEATHER CONDITIONS: Clear day with temperatures about 30° F. Site was snow covered.

PARTICIPATES/AFFILIATION: Ty L. Howard (DERR), Doug Taylor (DERR)

1.0 INTRODUCTION

The purpose of the site visit is to obtain photographs as documentation of the visit and to gather information on current conditions at the site. Access to the property was not required since the area was open to the public.

2.0 SITE DESCRIPTION

The site is located in the Wasatch National Forest approximately 3 miles northwest of the Alta Ski Resort. Little Cottonwood Creek is located 25 feet to the south. The site is located in the Tanner Flat Forest Service Campground approximately seven (6) miles from the mouth of Little Cottonwood Canyon. The area is not fenced and is accessible to the public. It was difficult to assess the amount of any slag present on the site since the area was covered with snow. However, previous excursions by DERR staff, during the discovery phase, indicated that the amount of slag present is very small. The site covers an area of approximately 20 acres.

3.0 AREA DESCRIPTION

The area is located in the Tanner Flats Campground area within Little Cottonwood Canyon. This area is at the bottom of the canyon in somewhat of a flat region. Steep canyon walls rise from the site to the north and the south. Snowbird Ski Resort is located about 1 mile further up the canyon and Alta Ski Resort is located approximately 3 miles further up the canyon.

4.0 SITE PHOTOGRAPHS

Photograph #1: A view looking southwest at Tanner Flat Campground.
Photograph #2: A view looking south at Tanner Flat Campground.
Photograph #3: A view looking south at the east portion of Tanner Flat Campground.
Photograph #4: A view southeast of the area just east of the Tanner Flat Campground. This may be the area where the actual smelter was located. White Pine Canyon is in the background.

5.0 SITE SAFETY PLAN

A Site Safety Plan is included following the photographs.

6.0 SITE SKETCH MAP

A Site Sketch Map is included following the Site Safety Plan.

PHOTO 1

PHOTO 2

PHOTO 3

PHOTO 4

PRELIMINARY ASSESSMENT SITE VISIT SAFETY PLAN

GENERAL INFORMATION

Site Name: Jones & Pardee Smelter

Address: Little Cottonwood Canyon
Utah

EPA Identification Number: UTD988075263

Scheduled Date of Site Visit: 3/4/93

PRE-VISIT CONFERENCE

Date of Conference: 7/7/92 Team Members: Doug Taylor

Supervisor: Brad Johnson

Team Leader: Ty L. Howard

SITE CHARACTERISTICS

Site Description: An old smelter site located in Little Cottonwood Canyon. The site is located in a campground area known as Tanner Flats.

Site History: The smelter operated from 1871 to 1873 and processed various types of metals.

HAZARD EVALUATION

Contaminants likely to be encountered on-site: Heavy metals in soil.

Hazards associated with the contaminants: Toxic.

Primary exposure hazards: Contaminated soil.

SAFETY MEASURES

Safety Equipment List: Safety Shoes Hard Hats

Nearest Hospital/Clinic: Alta View Hospital

Address: 9660 South 1300 East

Sandy 571-5411

NOTIFICATIONS

Site:	Local Health Department:

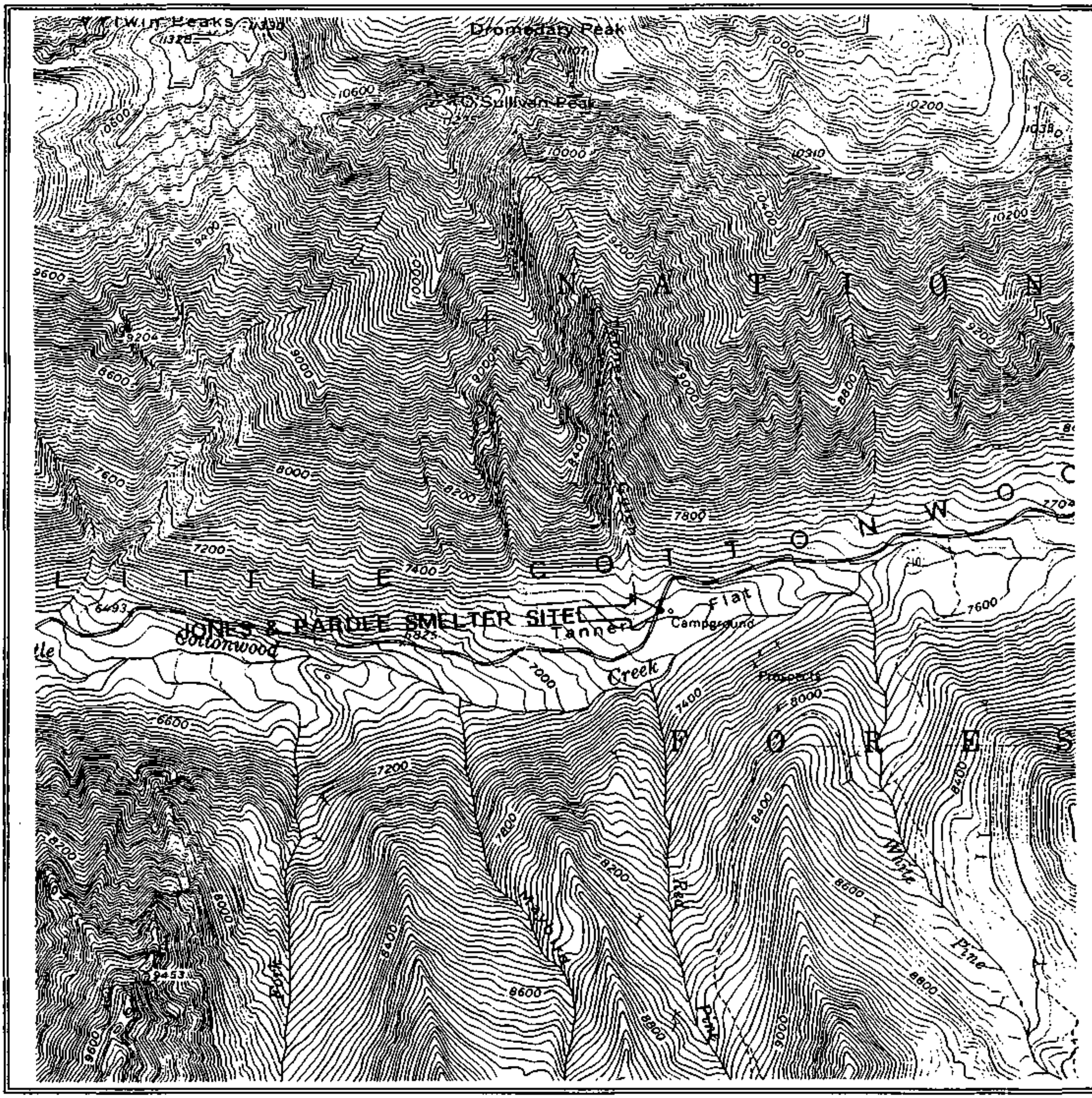
Ty L. Howard 3-4-93
Team Leader Signature Date

Brad T. Johnson 3/4/93
Supervisor Signature Date

APPENDIX E

LATITUDE/LONGITUDE DOCUMENT RECORD FORM

LATITUDE/LONGITUDE DOCUMENT RECORD FORM



SITE NAME: Jones & Pardee Smelter Site NUMBER: UTD988075263

MAP NAME: Dromedary Peak, Utah SCALE: 1:24,000 DATUM: 1929

COORDINATES OF LOWER RIGHT HAND CORNER OF 2.5 MINUTE GRID

LATITUDE 40° 32' 30" LONGITUDE 111° 40' 0 "

LATITUDE AND LONGITUDE CALCULATION WORKSHEET
WHEN USING CUSTOM RULER OR COORDINATOR (TM)

SITE: Jones & Pardee Smelter NUMBER: UTD988075263

AKA: _____ SSID: _____

ADDRESS: Little Cottonwood Canyon

CITY: _____ STATE: Utah ZIP CODE: 84092

SITE REFERENCE POINT: Center

TOPO MAP: Dromedary Peak, Utah TOWNSHIP: 3 S RANGE: 2 E

SCALE: 1:24,000 MAP DATE: 1950 SECTION: This area is not sectioned

MAP DATUM: 1929 MERIDIAN: Salt Lake

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP:

LONGITUDE: 111 ° 37' 30" LATITUDE: 40° 30' 00"

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' SUB-MAP:

LONGITUDE: 111° 40' 0" LATITUDE: 40° 32' 30"

CALCULATIONS: LATITUDE (7.5 MINUTE QUADRANGLE MAP)

A) ALIGN THE BOTTOM OF THE SCALE WITH BOTTOM OF GRID. ALIGN THE TOP OF THE SCALE WITH THE TOP OF GRID. POSITION EDGE OF RULER OVER SITE REFERENCE POINT WHILE KEEPING TOP AND BOTTOM ALIGNED.

B) READ TICS ON RULER AT 1 OR 0.5 SECOND INTERVALS (INTERPOLATE IF POSSIBLE).

C) RECORD LATITUDE: 40° 34' 20" _____.____

CALCULATIONS: LONGITUDE (7.5 MINUTE QUADRANGLE MAP)

A) ALIGN THE BOTTOM OF THE SCALE WITH RIGHT SIDE OF GRID. ALIGN THE TOP OF THE SCALE WITE THE LEFT SIDE OF GRID. POSITION EDGE OF RULER OVER SITE REFERENCE POINT WHILE KEEPING TOP AND BOTTOM ALIGNED.

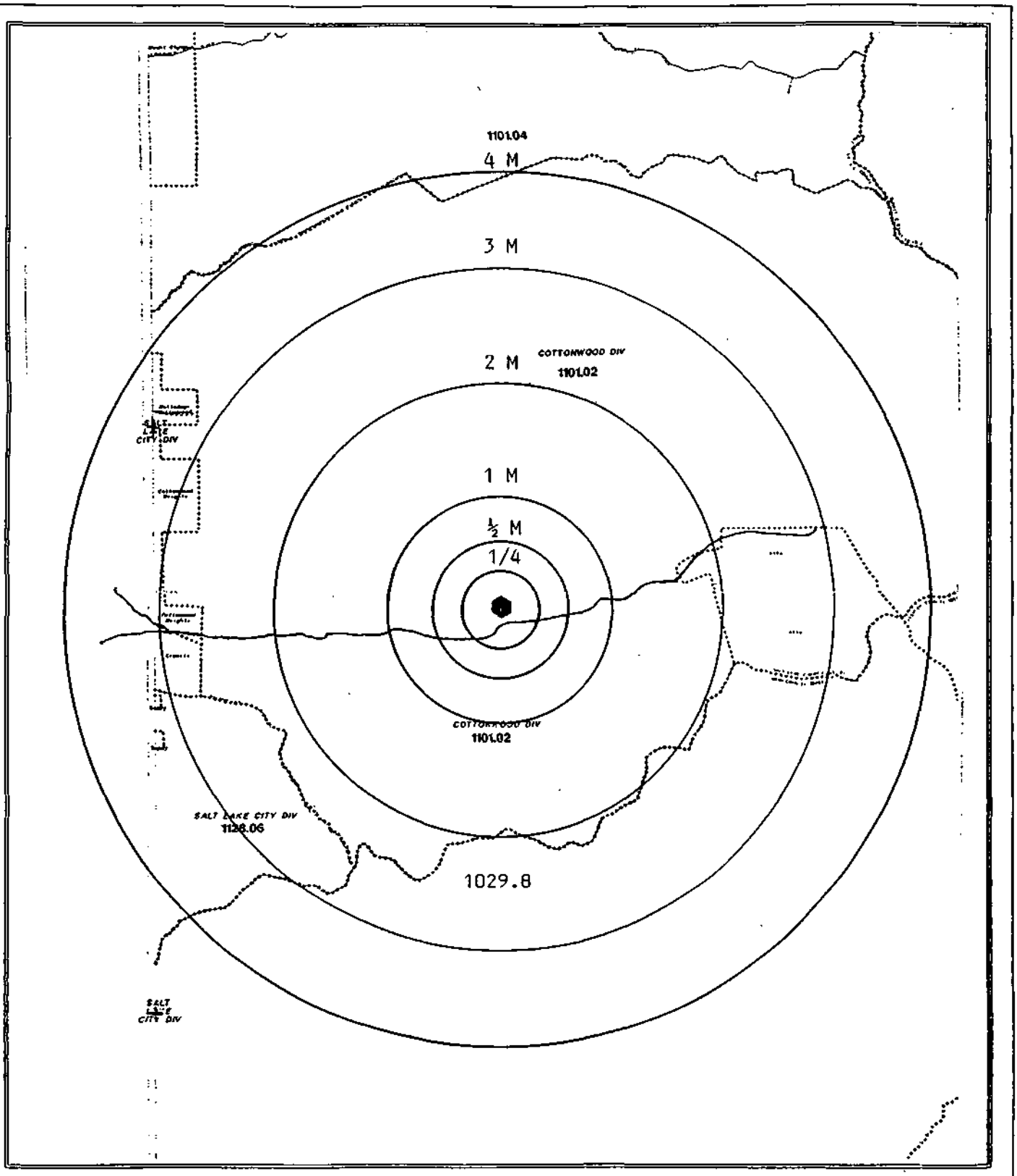
B) READ TICS ON RULER AT 1 SECOND INTERVALS (INTERPOLATE IF POSSIBLE).

C) RECORD LONGITUDE: 111° 41' 56" _____.____

INVESTIGATOR: Ty L. Howard DATE: 2/9/93

APPENDIX F

1990 CENSUS TRACTS



Scale: 7/8" = 1 Mile

NORTH

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENVIRONMENTAL
RESPONSE AND REMEDIATION

JONES & PARDEE SMELTER SITE
Salt Lake County, Utah
1990 Census Tracts

JONES & PARDEE SMELTER SITE

1990 CENSUS TRACTS

Census Tract/ BNA	Persons	1/4 Mile		1/2 Mile		1 Mile		2 Mile		3 Mile		4 Mile	
		%	Pop. #	%	Pop. #	%	Pop. #	%	Pop. #	%	Pop. #	%	Pop. #
110102	4,070	1	41	5	204	10	407	40	1628	65	2646	90	3663
110104	5,483		0		0		0		0		0	8	439
111303	6,057		0		0		0		0	5	303	70	4240
112602	12,950		0		0		0		0	5	648	40	5180
112607	6,821		0		0		0		0		0	5	341
112806	10,442		0		0		0		0	10	1044	20	2088
010298	5,417		0		0		0	2	108	15	813	30	1625
9922	2,103		0		0		0		0		0	2	42
TOTALS			41		204		407		1736		5453		17618

APPENDIX G

DRINKING WATER SOURCES WITHIN 4 MILES OF THE SITE

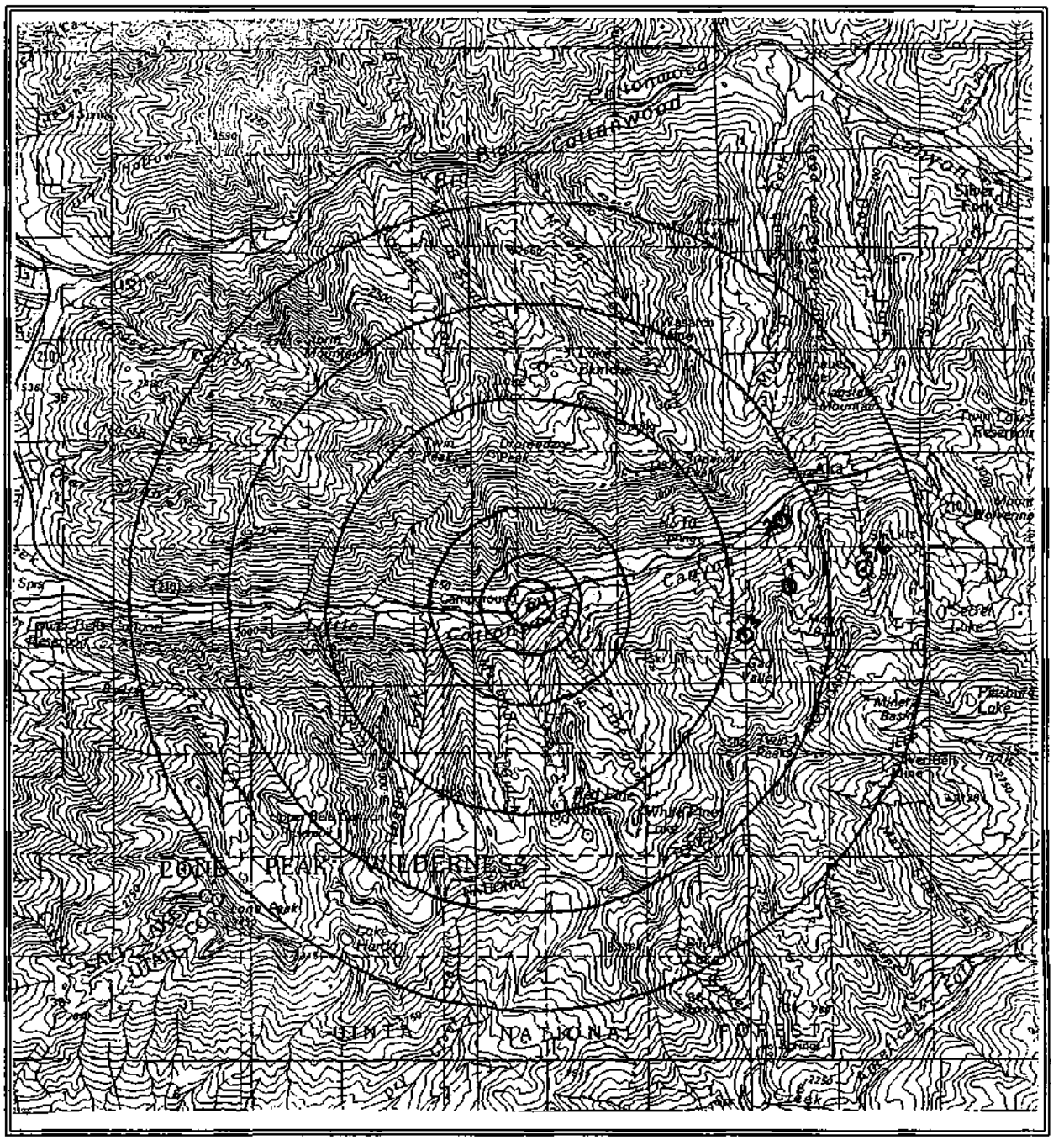
UTAH BUREAU OF DRINKING WATER/SANITATION

01/07/93

DRINKING WATER SOURCES WITHIN 21,120 FEET OF: 40° 34' 20.0" LATITUDE AND 111° 41' 56.0" LONGITUDE

	WATER SYSTEM NAME	SYSTEM MANAGER	PHONE (801)	SOURCE NO	SOURCE NAME	SOURCE TYPE	FLOW (GPM)	LATITUDE DEG MIN SEC	LONGITUDE DEG MIN SEC
	~~ALTA TOWN WATER SYSTEM~~	~~KATHERINE BLACK~~	~~363-5105~~	~~01~~	~~BAY CITY TUNNEL~~	~~TUNNEL~~	~~295~~	~~40 35 51.0~~	~~111 37 51.0~~
	~~BRIGHTON EST CAB OWN ASSN~~	~~DEAN BAKER~~	~~968-4107~~	~~01~~	~~WELL~~	~~WELL~~		~~40 35 45.0~~	~~111 40 30.0~~
	~~BRIGHTON EST CAB OWN ASSN~~	~~DEAN BAKER~~	~~968-4107~~	~~02~~		~~WELL~~		~~40 35 45.0~~	~~111 40 30.0~~
	~~METRO WATER DIST OF SLC~~	~~NICK SEPARIS~~	~~364-5678~~	~~02~~	~~E CTTNWD CR-2FT~~	~~SURFACE~~	~~34,700~~	~~40 34 15.0~~	~~111 45 37.0~~
	~~NORTH DRY CREEK IRR CO~~	~~SCOTT ARNOLD~~	~~561-0700~~	~~01~~	~~BELL CANYON~~	~~STREAM~~	~~100~~	~~40 32 28.0~~	~~111 44 08.5~~
1	SLCO S AREA #3 (SNOWBIRD)	DOUG EVANS	278-9660	01	PERUVIAN MINE	TUNNEL	100	40 34 29.5	111 38 45.0
	~~SLCO S AREA #3 (SNOWBIRD)~~	~~DOUG EVANS~~	~~278-9660~~	~~02~~	~~HELLGATE MINE~~	~~TUNNEL~~	~~100~~	~~40 35 20.0~~	~~111 38 56.0~~
2	SLCO S AREA #3 (SNOWBIRD)	DOUG EVANS	278-9660	03	WASATCH DRAIN	TUNNEL	3,200	40 35 00.5	111 39 01.5
3	SLCO S AREA #3 (SNOWBIRD)	DOUG EVANS	278-9660	04	GAD VALLEY SPG	SPRING	00	40 34 03.5	111 39 20.0
	~~STORM MOUNTAIN CAMPGROUND~~	~~FOREST ENGINEER~~	~~524-5103~~	~~01~~	~~STORM MT~~	~~SPRING~~	~~8~~	~~40 37 25.0~~	~~111 44 25.0~~
4	TANNERS FLAT CAMPGROUND	FOREST ENGINEER	524-5103	01	TANNERS SPR	SPRING	50	40 34 20.0	111 41 56.0
5	WATSON SHELTER	JOHN CAHILL	328-8589	01	NORTH COLLINS	SPRING	8	40 34 33.0	111 38 09.0
6	WATSON SHELTER	JOHN CAHILL	328-8589	02	SOUTH SPRING	SPRING	8	40 34 33.0	111 38 09.0

NORTH



MAP SOURCE: USGS 30' x 60' Topo.
Salt Lake City, Utah-Wyoming

o Source Location

NORTH

UTAH DEP. OF ENV. QUALITY

DIVISION OF ENVIRONMENTAL RESPONSE AND REMEDIATION

1:100,000 Map

Drinking Water Source Locations
Jones & Pardee Smelter Site
Salt Lake County, Utah

By	Date	Scale
TLH	2/9/93	5/8" = 1 Mi

GROUNDWATER SOURCES

Source No.	Water System	# of GW Withdrawals in System	% that GW Contributes to System	Population Served by System	Population Affected by Source	Distance from Site (feet)
1	Salt Lake Co. (Peruvian Mine)	1	100	280	280	14,992
2	Salt Lake Co. (Wasatch Drain)	1	100	transient	0	14,275
3	Salt Lake Co. (Gad Valley Spg.)	1	100	30+transient	30	11,714
4	Tanners Flat Camp Grd.	1	100	transient	0	0
5	Watson Shelter	1	100	800	400	17,830
6	Watson Shelter	1	100	800	400	17,830

NOTE: The source numbers correspond to the numbers to the left of the system name on the Utah Bureau of Drinking Water/Sanitation printout.

Population Served by Distance Category:

0 - 1/4 mile	0
>1/4 - 1/2 mile	0
>1/2 - 1 mile	0
>1 - 2 miles	0
>2 - 3 miles	310
>3 - 4 miles	800
TOTAL	1,110

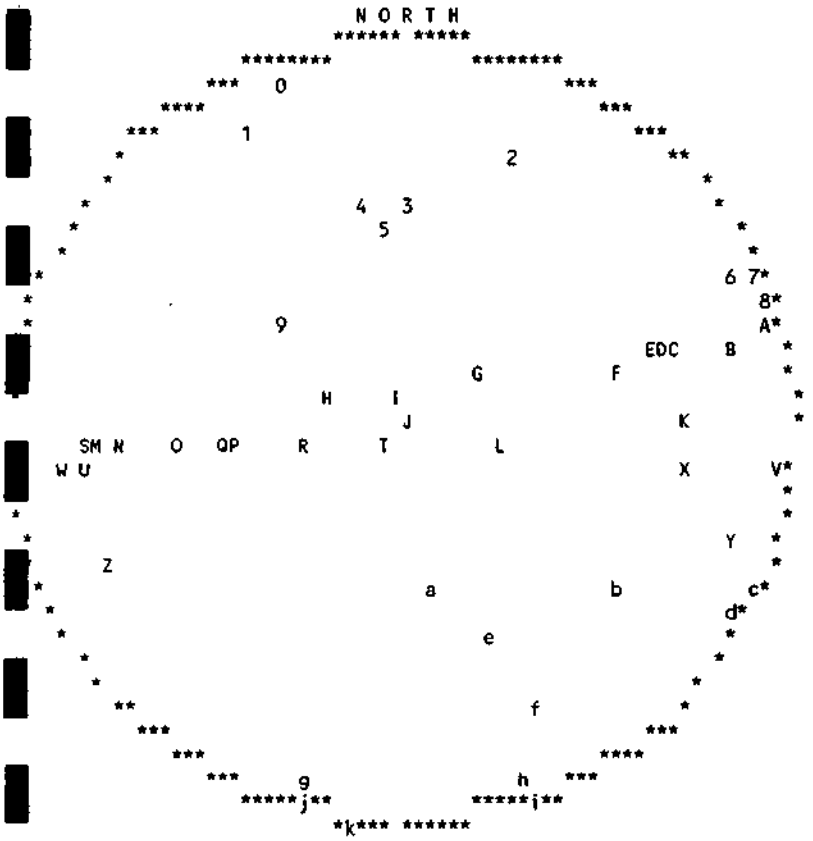
APPENDIX H

WATER POINTS OF DIVERSION (FLOW ≥ 1 cfs) WITHIN 4 MILES OF THE SITE

UTAH DIVISION OF WATER RIGHTS
WATER RIGHT POINT OF DIVERSION PLOT CREATED FRI, JAN 15, 1993, 8:28 AM
PLOT SHOWS LOCATION OF 90 POINTS OF DIVERSION

PLOT OF AN AREA WITH A RADIUS OF 21120 FEET FROM A POINT
N 2800 FEET, E 500 FEET OF THE SW CORNER,
SECTION 11 TOWNSHIP 3S RANGE 2E SL BASE AND MERIDIAN

PLOT SCALE IS APPROXIMATELY 1 INCH = 10000 FEET



UTAH DIVISION OF WATER RIGHTS
NWPLAT POINT OF DIVERSION LOCATION PROGRAM

WR	WATER RIGHT	QUANTITY CFS	AND/OR	AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER	DEPTH	YEAR LOG	POINT OF DIVERSION DESCRIPTION NORTH		EAST		CNR	SEC	TWN	RNG	B&M	UN	APP	TEE	SUR	UGW	PRT	RED
0	a16840	.0000		1.33	Spring Areas			S	400	W	600	NE	28	2S	2E	SL	X				X		
	WATER USE(S): MUNICIPAL											PRIORITY DATE: 06/24/1992											
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115					
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115					
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115					
	t92-43-12	.0000		5.00	Mahoney Pond #1			S	2050	E	200	N4	28	2S	2E	SL		X			X		
	WATER USE(S): OTHER											PRIORITY DATE: 09/09/1992											
	Ouray Park Irrigation Company				P. O. Box 146									Lapoint			UT	84039					
	Ouray Park Irrigation Company													Randlett			UT	84063					
	57 8897	5.0000		.00	Wasatch Mine Tunnel & Unnamed			N	1200	W	4000	SE	25	2S	2E	SL	X					X	
	WATER USE(S): POWER											PRIORITY DATE: 09/06/1989											
	Balls, Dave M.				11530 South 2950 West									South Jordan			UT	84065					
	57 6	.0000		140.00	Mill B South Fork of Big Cotto			S	1080	E	1093	NW	35	2S	2E	SL		X	X				
	WATER USE(S): IRRIGATION											PRIORITY DATE: 11/05/1904											
	Brown and Sanford Irrigation Company													Murray			UT						
	57 6	.0000		140.00	Mill B South Fork of Big Cotto			S	1363	E	543	NW	35	2S	2E	SL		X	X				
	WATER USE(S): IRRIGATION											PRIORITY DATE: 11/05/1904											
	Brown and Sanford Irrigation Company													Murray			UT						
	57 42	.0000		125.00	Lake Blanch Number 1			S	1080	E	1093	N4	34	2S	2E	SL		X	X				
	WATER USE(S): IRRIGATION											PRIORITY DATE: 03/02/1912											
	Brown and Sanford Irrigation Company													Murray			UT	84107					
5	57 41	.0000		85.41	Lake Blanch Number 3			S	1646	E	2442	N4	34	2S	2E	SL		X	X				
	WATER USE(S): IRRIGATION											PRIORITY DATE: 06/21/1927											
	Brown and Sanford Irrigation Company													Murray			UT	84107					
5	57 6	.0000		140.00	Mill B South Fork of Big Cotto			S	1646	E	2442	N4	34	2S	2E	SL		X	X				
	WATER USE(S): IRRIGATION											PRIORITY DATE: 11/05/1904											
	Brown and Sanford Irrigation Company													Murray			UT						
6	57 7501	.0150		.00	Unnamed Spring														X	X			X
	WATER USE(S): DOMESTIC											PRIORITY DATE: 05/26/1904											
	USA Forest Service				324 25th Street									Ogden			UT	84401					
6	57 7500	.0150		.00	Unnamed Spring														X	X			X
	WATER USE(S): DOMESTIC											PRIORITY DATE: 05/26/1904											
	USA Forest Service				324 25th Street									Ogden			UT	84401					
	a16839	.0000		1.33	Spring Areas					W	1700	SE	32	2S	3E	SL	X				X		
	WATER USE(S): MUNICIPAL											PRIORITY DATE: 06/24/1992											
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115					
	t92-57-20	.0000		500.00	Little Cottonwood Cr & Bay Cit			S	400	W	1500	NE	5	3S	3E	SL		X			X		
	WATER USE(S): IRRIGATION MUNICIPAL OTHER											PRIORITY DATE: 03/30/1992											
	Salt Lake City (Department of Public Uti				1530 South West Temple									Salt Lake City			UT	84115					
	57 4	.4900		.00	Underground Water Tunnel (Bay			S	441	E	1163	N4	5	3S	3E	SL		X			X		
	WATER USE(S): MINING											PRIORITY DATE: 04/18/1906											
	Gibbs, C. H.				3287 Third East Street									Salt Lake City			UT						
	a17153	1.9390 OR	1403.77	20	910			S	1534	W	770	NE	4	3S	2E	SL	X				X		
	WATER USE(S): MUNICIPAL																						
	Copperton Improvement District				8565 West State Highway									Copperton			UT	84006					
	57 7129	4.0000		.00	Alta Tunnel and Transportation			S	1601	W	1355	NE	5	3S	3E	SL		X			X		
	WATER USE(S): DOMESTIC MINING OTHER											PRIORITY DATE: 05/00/1912											
	Alta Tunnel & Transporation Co.				330 Atlas Building									Salt Lake City			UT						

UTAH DIVISION OF WATER RIGHTS
NWPLAT POINT OF DIVERSION LOCATION PROGRAM

WR	WATER RIGHT	QUANTITY CFS	AND/OR	AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER	DEPTH	YEAR LOG	POINT OF DIVERSION DESCRIPTION NORTH		EAST		CNR	SEC	TWN	RNG	B&M	U N	A P	P E	T R	S U	U G	P R T E	R E D
B	a16841	.0000		167.90	Quincy Mine Tunnel			S	2950	W	480	N4	5	3S	3E	SL	X			X				
	WATER USE(S): MUNICIPAL													PRIORITY DATE: 06/24/1992										
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115						
C	57 8778	2.6960		.00	Wasatch Drain Tunnel			S	3364	W	3739	S4	32	2S	3E	SL		X		X				
	WATER USE(S): OTHER													PRIORITY DATE: 03/25/1985										
	Lone Peak Partners				Snowbird Resort Plaza									Snowbird			UT	84092						
D	57 8813	11.0000		.00	Wasatch Drain Tunnel			S	3567	W	1309	NE	6	3S	3E	SL	X			X				
	WATER USE(S): POWER													PRIORITY DATE: 02/27/1986										
	Snowbird LTD.													Snowbird			UT	84092						
D	t92-57-19	.0000		2000.00	Tunnels and Springs			S	3567	W	1309	NE	6	3S	3E	SL	X		X					
	WATER USE(S): IRRIGATION MUNICIPAL OTHER													PRIORITY DATE: 03/30/1992										
	Salt Lake City (Department of Public Uti				1530 South West Temple									Salt Lake City			UT	84115						
	57 5919	5.5700		.00	Tunnel			S	3492	W	2075	NE	6	3S	3E	SL		X		X				
	WATER USE(S): DOMESTIC MINING													PRIORITY DATE: 00/00/1912										
	Wasatch Mines Company				1109 Newhouse Building									Salt Lake			UT							
	57 8664	65.0000		.00	Little Cottonwood Creek			S	4300	E	1100	NW	6	3S	3E	SL	X			X				
	WATER USE(S): POWER													PRIORITY DATE: 12/17/1982										
	Snowbird Ltd.													Snowbird			UT	84092						
	57 3	6.0000		.00	Little Cottonwood Creek			N	628	E	4686	SW	2	3S	2E	SL		X		X				
	WATER USE(S): POWER OTHER													PRIORITY DATE: 09/02/1904										
	Continental Mines and Smelting Corporati				409 Dooly Block									Salt Lake City			UT							
	57 8183	.0110		.00	Unnamed Spring			S	905	W	3680	NE	10	3S	2E	SL		X		X				
	WATER USE(S): DOMESTIC													PRIORITY DATE: / /1902										
	O'Toole, William G.				1980 South 150 West									Bountiful			UT	84010						
	57 1	12.0000		.00	Little Cotonwood Creek			S	1126	E	340	NW	11	3S	2E	SL		X		X				
	WATER USE(S): POWER													PRIORITY DATE: 05/27/1903										
	The Columbus Consolidated Mining Company				37 Commercial Blk.									Salt Lake City			UT							
J	a16839	.0000		1.33	Spring Areas			S	1500	E	500	NW	11	3S	2E	SL	X			X				
	WATER USE(S): MUNICIPAL													PRIORITY DATE: 06/24/1992										
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115						
K	t92-57-19	.0000		2000.00	Tunnels and Springs			S	1827	W	2992	N4	8	3S	3E	SL	X			X				
	WATER USE(S): IRRIGATION MUNICIPAL OTHER													PRIORITY DATE: 03/30/1992										
	Salt Lake City (Department of Public Uti				1530 South West Temple									Salt Lake City			UT	84115						
L	a16842	.0000		.44	Unnamed Spring			S	222	E	301	W4	12	3S	2E	SL	X			X				
	WATER USE(S): MUNICIPAL													PRIORITY DATE: 06/24/1992										
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115						
M	57 82	10.3200		.00	Little Cottonwood Creek			S	496	E	85	W4	8	3S	2E	SL		X					X	
	WATER USE(S): OTHER													PRIORITY DATE: 01/28/1929										
	Whitmore Oxygen Company				P.O. Box 25477									Salt Lake City			UT	84125						
	57 81	30.0000		.00	Little Cottonwood Creek			S	517	E	1366	W4	8	3S	2E	SL		X					X	
	WATER USE(S): OTHER													PRIORITY DATE: 01/28/1929										
	Whitmore Oxygen Company				P.O. Box 25477									Salt Lake City			UT	84125						
	57 82	10.3200		.00	Little Cottonwood Creek			S	550	E	1257	W4	8	3S	2E	SL		X		X				
	WATER USE(S): OTHER													PRIORITY DATE: 01/28/1929										
	Whitmore Oxygen Company				P.O. Box 25477									Salt Lake City			UT	84125						
	57 56	20.3200		.00	Little Cottonwood Creek			S	550	E	1257	W4	8	3S	2E	SL		X		X				
	WATER USE(S): POWER													PRIORITY DATE: 05/17/1913										
	Cottonwood Granite Company													Salt Lake City			UT							

UTAH DIVISION OF WATER RIGHTS
NWPLAT POINT OF DIVERSION LOCATION PROGRAM

P AR	WATER RIGHT	QUANTITY CFS	AND/OR	AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER	DEPTH	YEAR LOG	POINT OF DIVERSION DESCRIPTION NORTH		EAST		CNR	SEC	TWN	RNG	B&M	U N	A P	T E	S U	U G	P R	R E D
N	57 88	20.0000		.00	Little Cottonwood Creek			S	659	E	1568	W4	8	3S	2E	SL		X			X		
	WATER USE(S): POWER													PRIORITY DATE: 10/01/1930									
	Temple Granite Quarries				430 East South Temple									Salt Lake City			UT						
O	57 81	30.0000		.00	Little Cottonwood Creek			S	548	W	1000	E4	8	3S	2E	SL		X			X		
	WATER USE(S): OTHER													PRIORITY DATE: 01/28/1929									
	Whitmore Oxygen Company				P.O. Box 25477									Salt Lake City			UT	84125					
O	57 57	30.0000		.00	Little Cottonwood Creek			S	548	W	1000	E4	8	3S	2E	SL		X			X		
	WATER USE(S): POWER													PRIORITY DATE: 05/17/1913									
	Cottonwood Granite Company													Salt Lake City			UT						
P	57 866	15.0000		.00	Little Cottonwood Creek			S	725	E	2201	W4	9	3S	2E	SL		X			X		
	WATER USE(S): POWER													PRIORITY DATE: 07/13/1944									
	Whitmore, Rich				6900 South 23rd East									Salt Lake City			UT						
	57 54	20.2400		.00	Little Cottonwood Creek			S	791	E	1678	W4	9	3S	2E	SL		X			X		
	WATER USE(S): POWER													PRIORITY DATE: 03/19/1913									
	Cottonwood Granite Company				515 McCornick Block									Salt Lake City			UT						
	57 8838	50.0000		.00	Little Cottonwood Creek			S	791	E	1798	W4	9	3S	2E	SL		X			X		
	WATER USE(S): POWER													PRIORITY DATE: 05/13/1987									
	Murray City Corporation				150 West 4800 South									Murray City			UT	84107					
	57 66	10.0000		.00	Little Cottonwood Creek			S	926	E	1431	W4	09	3S	2E	SL		X			X		
	WATER USE(S): OTHER													PRIORITY DATE: 10/08/1920									
	Whitmore, A. O.				Wasatch Resort									Sandy			UT						
	57 62	8.0000		.00	South Fork Little Cottonwood C			S	3447	W	4407	NE	10	3S	2E	SL		X			X		
	WATER USE(S): POWER													PRIORITY DATE: 09/28/1915									
	Wasatch Power Company													Salt Lake City			UT						
	57 2700	.3524		.00	Little Cottonwood Creek			S	836	E	4518	W4	7	3S	2E	SL		X			X		
	WATER USE(S): DOMESTIC																						
	West Jordan, City of				1850 West 7800 South									West Jordan			UT	84084					
S	57 8738	.6500		.00	Little Cottonwood Creek			S	836	E	4518	W4	7	3S	2E	SL		X			X		
	WATER USE(S): MUNICIPAL													PRIORITY DATE: 00/00/1856									
	Salt Lake City Corporation				1530 South West Temple Street									Salt Lake City			UT	84115					
S	57 8569	100.0000		.00	Little Cottonwood Creek			S	837	E	4512	W4	7	3S	2E	SL		X			X		
	WATER USE(S): MUNICIPAL POWER													PRIORITY DATE: 02/17/1981									
	Murray City Corporation				5461 South State Street									Murray			UT	84107					
S	57 24	.8776		.00	Little Cottonwood Creek			S	836	E	4518	W4	7	3S	2E	SL		X			X		
	WATER USE(S): DOMESTIC													PRIORITY DATE: 00/00/1856									
	Taylorsville-Bennion Improvement Distric				1800 West 4700 South									Taylorsville			UT	84118					
S	57 95	5.0000		.00	Little Cottonwood Creek			S	836	E	4518	W4	7	3S	2E	SL		X			X		
	WATER USE(S): MUNICIPAL													PRIORITY DATE: 05/27/1933									
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115					
	57 98	3.0000		.00	Little Cottonwood Creek			S	836	E	4518	W4	7	3S	2E	SL		X			X		
	WATER USE(S): MUNICIPAL													PRIORITY DATE: 12/15/1933									
	Salt Lake City Corporation				1530 South West Temple									Salt Lake City			UT	84115					
	57 8739	1.2300		.00	Little Cottonwood Creek			S	836	E	4518	W4	7	3S	2E	SL		X			X		
	WATER USE(S): DOMESTIC													PRIORITY DATE: 00/00/1856									
	West Side Water System													Taylorsville			UT						
	57 446	8.0000		.00	Little Cottonwood Creek			S	838	E	4512	W4	7	3S	2E	SL		X			X		
	WATER USE(S): MUNICIPAL POWER													PRIORITY DATE: 09/20/1940									
	Murray City Corporation				5025 South State Street									Murray			UT	84107					

UTAH DIVISION OF WATER RIGHTS
NWPLAT POINT OF DIVERSION LOCATION PROGRAM

R	WATER RIGHT	QUANTITY CFS	AND/OR AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER	DEPTH	YEAR LOG	POINT OF DIVERSION DESCRIPTION NORTH	EAST	CNR	SEC	TWN	RNG	B&M	U N	A P	T E	S U	U G	P R	E D
S	a12091	37.3200	.00	Little Cottonwood Creek			S 853	E 4557	W4	7	3S	2E	SL		X		X			
	WATER USE(S): MUNICIPAL													PRIORITY DATE: 12/03/1981						
	Sandy City Corporation			440 East 8680 South										Sandy				UT	84094	
T	57 8636	130.0000	.00	Little Cottonwood Creek			S 3700	E 5060	NW	10	3S	2E	SL		X		X			
	WATER USE(S): POWER													PRIORITY DATE: 02/26/1982						
	Salt Lake City Corporation			1530 S. West Temple										Salt Lake City				UT	84115	
U	57 8614	.1400	.00	Wasatch Resort East & West Spr			S 1732	E 4827	W4	7	3S	2E	SL		X		X			
	WATER USE(S): IRRIGATION DOMESTIC													PRIORITY DATE: 00/00/1892						
	Wasatch Resort Water Company			Wasatch Resort, Little Cottonwood Canyon										Sandy				UT	84092	
V	55 5312	.0000	.00	Emerald Lake											X		X			X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1850						
	USA Forest Service			324 - 25th Street										Ogden				UT	84401	
	57 8614	.1400	.00	Wasatch Resort East & West Spr			S 1999	E 3811	W4	7	3S	2E	SL		X		X			
	WATER USE(S): IRRIGATION DOMESTIC													PRIORITY DATE: 00/00/1892						
	Wasatch Resort Water Company			Wasatch Resort, Little Cottonwood Canyon										Sandy				UT	84092	
	t92-57-19	.0000	2000.00	Tunnels and Springs			S 4842	W 388	NE	7	3S	3E	SL		X		X			
	WATER USE(S): IRRIGATION MUNICIPAL OTHER													PRIORITY DATE: 03/30/1992						
	Salt Lake City (Department of Public Uti			1530 South West Temple										Salt Lake City				UT	84115	
	55 5112	.0000	.00	American Fork Creek											X		X			X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855						
	USA Forest Service			324 - 25th Street										Ogden				UT	84401	
	55 5113	.0150	.00	Mineral Spring											X		X			X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855						
	USA Forest Service			324 - 25th Street										Ogden				UT	84401	
	57 8571	30.0000	.00	North Dry Creek			S 3720	E 440	NW	17	3S	2E	SL	X			X			
	WATER USE(S): POWER													PRIORITY DATE: 03/17/1981						
	Murdock, Robert J.			2964 East 3135 South										Salt Lake City				UT	84109	
	Murphy, Melvin H.			2964 East 3135 South										Salt Lake City				UT	84109	
	57 53	.0000	213.00	Red Pine Lake			S 116	E 2276	NW	23	3S	2E	SL		X		X			
	WATER USE(S): IRRIGATION													PRIORITY DATE: 02/26/1913						
	Little Cottonwood Water Company													Sandy				UT		
	57 8749	16.7000	.00	White Pine Creek			S 490	E 1044	NW	19	3S	3E	SL		X		X			
	WATER USE(S): IRRIGATION OTHER													PRIORITY DATE: 06/16/1910						
	State of Utah Board of Water Resources			1636 West North Temple										Salt Lake City				UT	84116	
b	a3861	16.7000	.00	White Pine Creek			S 490	E 1044	NE	24	3S	2E	SL		X		X			
	WATER USE(S): OTHER													PRIORITY DATE: 06/16/1910						
	State of Utah Board of Water Resources			1636 West North Temple										Salt Lake City				UT	84116	
c	55 5121	.0150	.00	MaryEllen Spring											X		X			X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855						
	USA Forest Service			324 - 25th Street										Ogden				UT	84401	
c	55 5122	.0000	.00	MaryEllen Creek											X		X			X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855						
	USA Forest Service			324 - 25th Street										Ogden				UT	84401	
d	55 99	.0900	.00	Unnamed spring			N 3692	W 3064	SE	20	3S	3E	SL		X		X			
	WATER USE(S): DOMESTIC													PRIORITY DATE: 10/20/1931						
	Yankee Mines Company			616 McCornick Building														UT		
	57 83	.0000	200.00	White Pine Lake			N 2440	W 450	SE	23	3S	2E	SL		X		X			
	WATER USE(S): IRRIGATION													PRIORITY DATE: 09/17/1929						
	State of Utah Board of Water Resources			1636 West North Temple										Salt Lake City				UT	84116	

UTAH DIVISION OF WATER RIGHTS
NWPLAT POINT OF DIVERSION LOCATION PROGRAM

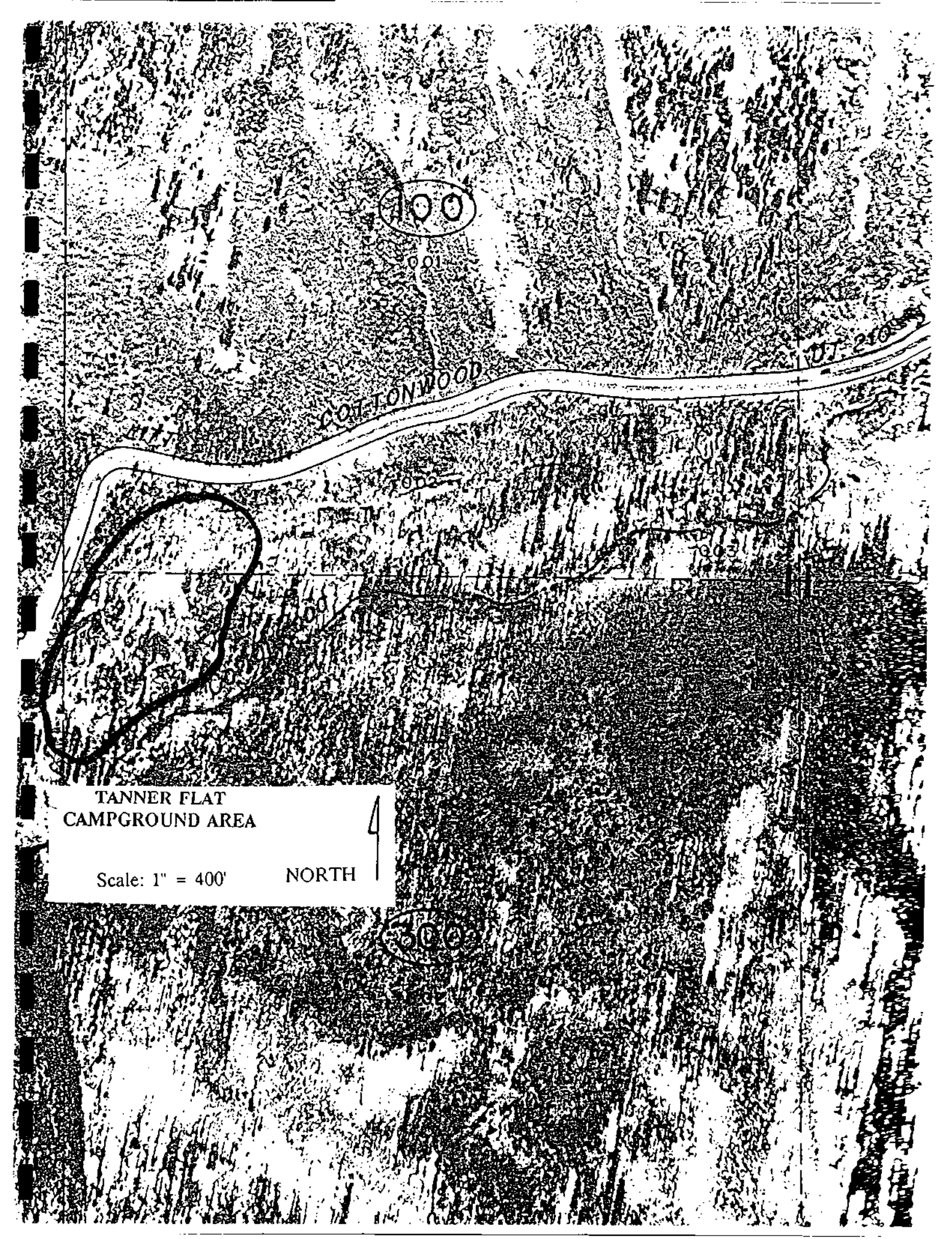
R	WATER RIGHT	QUANTITY CFS	AND/OR	AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER	DEPTH	YEAR LOG	NORTH		EAST		POINT OF DIVERSION DESCRIPTION CNR	SEC	TWN	RNG	B&M	U N	A P	P E	T E	S U	U G	P R	E D
S	57 8737	.0800			.00 Little Cottonwood Creek			S	838	E	4512	W4	7	3S	2E	SL			X		X			
	WATER USE(S): MUNICIPAL											PRIORITY DATE: 00/00/1856												
	Midvale City Corporation				80 East Center Street							Midvale				UT	84047								
S	57 80	15.0000			.00 Little Cottonwood Creek			S	839	E	4521	W4	7	3S	2E	SL			X		X			
	WATER USE(S): POWER											PRIORITY DATE: 05/16/1929												
	Murray City Corporation				5025 South State Street							Murray				UT	84107								
S	57 78	15.0000			.00 Little Cottonwood Creek			S	838	E	4512	W4	7	3S	2E	SL			X		X			
	WATER USE(S): POWER											PRIORITY DATE: 01/14/1927												
	Murray City Corporation				5025 South State Street							Murray				UT	84107								
S	57 37	15.0000			.00 Little Cottonwood Creek			S	838	E	4512	W4	7	3S	2E	SL			X		X			
	WATER USE(S): POWER											PRIORITY DATE: 06/08/1910												
	Murray City Corporation											Murray				UT	84107								
	57 8735	.2900			.00 Little Cottonwood Creek			S	838	E	4512	W4	7	3S	2E	SL			X		X			
	WATER USE(S): MUNICIPAL											PRIORITY DATE: 00/00/1856												
	Midvale City Corporation				80 East Center Street							Midvale				UT	84047								
	57 8564	55.0000			.00 Little Cottonwood Creek			S	838	E	4512	W4	7	3S	2E	SL		X			X			
	WATER USE(S): MUNICIPAL POWER											PRIORITY DATE: 01/30/1981												
	Murray City Corporation				5025 South State Street							Murray				UT	84107								
	57 8736	.2500			.00 Little Cottonwood Creek			S	838	E	4512	W4	7	3S	2E	SL			X		X			
	WATER USE(S): MUNICIPAL											PRIORITY DATE: 10/31/1930												
	Midvale City Corporation											Midvale				UT	84047								
	57 8734	.7100			.00 Little Cottonwood Creek			S	838	E	4512	W4	7	3S	2E	SL			X		X			
	WATER USE(S): MUNICIPAL											PRIORITY DATE: 00/00/1856												
	Midvale City Corporation				80 East Center Street							Midvale				UT	84047								
	a16843	.0000		2000.00	Tunnels, Springs & L. Cottonwo													X				X		
	WATER USE(S): MUNICIPAL											PRIORITY DATE: 09/28/1992												
	Salt Lake City Corporation				1530 South West Temple							Salt Lake City				UT	84115								
S	E2919	29.5000			.00 Utah Lake & Little Cottonwood			S	838	E	4512	W4	7	3S	2E	SL	X				X			
	WATER USE(S): IRRIGATION MUNICIPAL											PRIORITY DATE: 03/30/1992												
	Salt Lake City Corporation				1530 South West Temple							Salt Lake City				UT	84115								
S	E2922	15.9200			.00 Utah Lake & Little Cottonwood			S	838	E	4512	W4	7	3S	2E	SL	X				X			
	WATER USE(S): IRRIGATION MUNICIPAL											PRIORITY DATE: 03/30/1992												
	Salt Lake City Corporation				1530 South West Temple							Salt Lake City				UT	84115								
S	E2920	53.0350			.00 Utah Lake & Little Cottonwood			S	838	E	4512	W4	7	3S	2E	SL	X				X			
	WATER USE(S): IRRIGATION MUNICIPAL											PRIORITY DATE: 03/30/1992												
	Salt Lake City Corporation				1530 South West Temple							Salt Lake City				UT	84115								
S	E2921	15.9200			.00 Utah Lake & Little Cottonwood			S	838	E	4512	W4	7	3S	2E	SL	X				X			
	WATER USE(S): IRRIGATION MUNICIPAL											PRIORITY DATE: 03/30/1992												
	Salt Lake City Corporation				1530 South West Temple							Salt Lake City				UT	84115								
	57 8756	2.0000			.00 Little Cottonwood Creek			S	853	E	4557	W4	7	3S	2E	SL			X		X			
	WATER USE(S): DOMESTIC MUNICIPAL											PRIORITY DATE: 06/02/1982												
	Sandy Irrigation Company				8971 South 700 East							Sandy				UT	84070								
	57 8755	37.3200			.00 Little Cottonwood Creek			S	853	E	4557	W4	7	3S	2E	SL			X		X			
	WATER USE(S): MUNICIPAL																							
	Sandy City Corporation				440 East 8680 South							Sandy				UT	84070								
	a12312	2.0000			.00 Little Cottonwood Creek			S	853	E	4557	E4	12	3S	1E	SL		X			X			
	WATER USE(S): IRRIGATION											PRIORITY DATE: 06/02/1982												
	Sandy Irrigation Company				8971 South 700 East							Sandy				UT	84070								

UTAH DIVISION OF WATER RIGHTS
NWPLAT POINT OF DIVERSION LOCATION PROGRAM

R	WATER RIGHT	QUANTITY CFS	AND/OR	AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER	DEPTH	YEAR LOG	POINT OF DIVERSION DESCRIPTION NORTH		EAST		CNR	SEC	TWN	RNG	B&M	U N	A P	P E	T E	S U	U G	P R	R E D
e	57 1549	.0000		92.50	White Pine Fork Creek			N 2440	W	450		SE	23	3S	2E	SL		X		X			
	WATER USE(S): IRRIGATION													PRIORITY DATE: 10/01/1959										
	State of Utah Board of Water Resources				1636 West North Temple									Salt Lake City			UT	84116						
f	55 5124	.0000		.00	Silver Glance Lake															X		X		X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855										
	USA Forest Service				324 - 25th Street									Ogden			UT	84401						
g	55 7340	.0000		.00	Matterhorn Pond															X		X		X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855										
	USA Forest Service				324 - 25th Street									Ogden			UT	84401						
h	55 6951	66.6000		.00	Silver Lake			N 5000	E	1700		SW	36	3S	2E	SL		X		X			
	WATER USE(S): IRRIGATION STOCKWATERING													PRIORITY DATE: 00/00/1851										
	Lehi Irrigation Company				P.O. Box 316									Lehi			UT	84043						
	55 7199	.0000		95.20	Silver Lake			N 5000	E	1700		SW	36	3S	2E	SL		X		X			
	WATER USE(S): IRRIGATION STOCKWATERING													PRIORITY DATE: 00/00/1851										
	American Fork Irrigation Company				1078 West State Street									American Fork			UT	84003						
	55 6953	.0000		38.00	Silver Lake			N 5000	E	1700		SW	36	3S	2E	SL		X		X			
	WATER USE(S): IRRIGATION STOCKWATERING													PRIORITY DATE: 00/00/1851										
	Pleasant Grove Irrigation Company				9826 North 4800 West									Highland			UT	84003						
	55 5125	.0000		.00	Silver Lake															X		X		X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855										
	USA Forest Service				324 - 25th Street									Ogden			UT	84401						
i	55 5125	.0000		.00	Silver Lake															X		X		X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855										
	USA Forest Service				324 - 25th Street									Ogden			UT	84401						
j	55 5126	.0000		.00	Silver Creek															X		X		X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855										
	USA Forest Service				324 - 25th Street									Ogden			UT	84401						
j	55 5106	.0000		.00	Left Fork Dry Creek															X		X		X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855										
	USA Forest Service				324 - 25th Street									Ogden			UT	84401						
k	55 5107	.0000		.00	Right Fork Dry Creek															X		X		X
	WATER USE(S): OTHER													PRIORITY DATE: 00/00/1855										
	USA Forest Service				324 - 25th Street									Ogden			UT	84401						

APPENDIX I

1979 AERIAL PHOTOGRAPH OF THE SITE


400
001
COTTONWOOD
UT 210
002
003
TANNER FLAT
CAMPGROUND AREA
Scale: 1" = 400'
NORTH
300